



**DELHI UNIVERSITY**  
**LIBRARY**

## DELHI UNIVERSITY LIBRARY

Cl. No.

Ac. No.

S Date of release for loan

This book should be returned on or before the date last stamped below. An overdue charge of 25 Paise per day will be charged for the first two days and 50 Paise from the third day the book is kept overtime

---



# **THE ELEMENTS OF ADMINISTRATION**



# THE ELEMENTS OF ADMINISTRATION

*By*

L. URWICK, O.B.E., M.C., M.A., F.I.I.A.

Sometime Director of the International Management Institute, Geneva.

Author of *The Meaning of Rationalisation, Management of To-morrow*

Co-Author of *Papers in the Science of Administration*, etc.

SECOND EDITION



LONDON  
SIR ISAAC PITMAN & SONS, LTD.

*First published, 1943*  
*Reprinted, 1944*  
*Reprinted, 1945*  
*Reprinted, 1946*  
*Second edition, 1947*  
*Reprinted, 1950, 1951, 1953, 1954, 1955, 1957, 1958, 1961*

SIR ISAAC PITMAN & SONS, LTD.

PITMAN HOUSE, PARKER STREET, KINGSWAY, LONDON, W.C.2

THE PITMAN PRESS, BATH

PITMAN HOUSE, BOUVIERIE STREET, CARLTON, MILDENHURNE

22-25 BECKETT'S BUILDINGS, PRESIDENT STREET, JOHANNESBURG

ASSOCIATED COMPANIES

PITMAN MEDICAL PUBLISHING COMPANY, LTD.

39 PARKER STREET, LONDON, W.C.2

PITMAN PUBLISHING CORPORATION

2 WEST 45TH STREET, NEW YORK

SIR ISAAC PITMAN & SONS (CANADA), LTD.

(INCORPORATING THE COMMERCIAL TEXT BOOK COMPANY)

PITMAN HOUSE, 381-383 CHURCH STREET, TORONTO

*Made and Printed in Great Britain by*  
*The Camelot Press Ltd., London and Southampton*  
*F1—(B.371)*

## CONTENTS

| CHAP. |                                                                                     | PAGE |
|-------|-------------------------------------------------------------------------------------|------|
|       | <i>Preface</i> . . . . .                                                            | 7    |
|       | BIBLIOGRAPHY . . . . .                                                              | 12   |
| I.    | INTRODUCTION—THE NATURE OF ADMINISTRATION<br>AND THE GENERAL SCHEME OF ANALYSIS . . | 13   |
| II.   | FORECASTING . . . . .                                                               | 20   |
| III.  | PLANNING . . . . .                                                                  | 26   |
| IV.   | ORGANISATION AND CO-ORDINATION—PRINCIPLES .                                         | 35   |
| V.    | ORGANISATION AND CO-ORDINATION—METHODS .                                            | 56   |
| VI.   | COMMAND . . . . .                                                                   | 77   |
| VII.  | CONTROL . . . . .                                                                   | 97   |
| VIII. | CONCLUSION . . . . .                                                                | 117  |
|       | <i>Index</i> . . . . .                                                              | 130  |

## FIGURES

|      |                                                                |     |
|------|----------------------------------------------------------------|-----|
| I.   | THE PRINCIPLES OF ADMINISTRATION . . . .                       | 19  |
| II.  | THE PRINCIPLES OF ORGANISATION AND CO-<br>ORDINATION . . . . . | 43  |
| III. | LEVELS OF SUPERVISION OF OPERATION . .                         | 66  |
| IV.  | THE PRINCIPLES OF COMMAND AND CONTROL .                        | 78  |
|      | THE PATTERN OF ADMINISTRATION . . . .                          | 103 |
| VI.  | THE ELEMENTS OF ADMINISTRATION—AND TABLE<br><i>facing page</i> | 118 |

BY  
PRADEEP KUMAR  
TO MY WIFE

## PREFACE

THIS brief discussion of the Elements of Administration is based on five lectures delivered under the auspices of the London Branch of the Institute of Industrial Administration at the Polytechnic, London, in May and June, 1942. The material has been rearranged in minor respects to adapt it to the requirements of print. Otherwise the text is in substance that delivered at the lectures.

The main point underlying this series of lectures is that it focuses in a logical scheme various "Principles of Administration" formulated by different authorities. The fact that such "Principles"—worked out by persons of different nationalities, widely varying experience and, in the majority of cases, with no knowledge of each other's work—were susceptible to such logical arrangement, is in itself highly significant.

The art and science of administering the social groups, large and small, which are increasingly characteristic of our civilisation, has emerged during the past quarter of a century as a *technical skill*. To-day, prolonged experience of a particular kind of group is of substantially less importance as a qualification than ability to administer *per se*. And such ability is to a decreasing degree a question of empirical skill, of "experience" in the sense of use and wont, and increasingly a matter of personal and intellectual equipment. Such equipment includes, beside the obvious qualities of personality and temperament which mark the individual as suited to a position of leadership among his fellows, a mind well versed in the underlying sciences on which the art of administration rests and thoroughly instructed in the principles and methods of the art itself.

This development of a *technique* of administration, a body of professional knowledge without which those who attempt to manage other people appear increasingly amateurish, is likely to have a profound effect on our institutions. It is in line with the evolution of the control over material things which is characteristic of human life in the last century and a half. It is not incompatible with the principles of democratic government. But it is quite irreconcilable with a view of the way to give effect to those principles which treats questions of organisation and administration as matters of opinion or attempts to arrange the

executive aspect of government on the basis of personalities and politics.

At the moment there is, admittedly, an insufficient basis in the physical sciences for an exact science of administration. The chief cause of the disasters under which humanity is at present suffering is a lack of balance between man's knowledge of the physical sciences and his grasp of the laws of social organisation necessary to control the power which that knowledge has created. He can build and fly aeroplanes. He has not yet learned how to build and to direct his social institutions so that aeroplanes need not be used for destroying his fellow men. But there is a great deal more exact knowledge of what is and is not effective in administration than is commonly appreciated. What is lacking is the imagination to apply that knowledge to current problems or the ability in those who possess it to make headway against political thinking which is still largely based on self-seeking.

The first step is undoubtedly a recognition that social organisation, on whatever scale, can only prove successful in so far as it is *social*. That is to say, the aim which is pursued by all concerned in the administration of each group is an objective enlisting the interest of the group as a whole, and consistent with the interest of all larger groups of which it is a part, not some extraneous purpose desired by certain individuals in that group, either as individuals or as members of some other professional or social grouping. Administration can only be based on *principle* in so far as this underlying principle is accepted. And since it is only by the development of administration based on principle that humanity can hope to make head against the problems created by power-driven machinery, individual opportunism is, in the conditions of to-day, as immoral, as destructive of orderly, secure, co-operative living, as lying, deceit and other forms of personal corruption.

Probably, as a natural outcome of years of war and devastation, there is emerging today a widespread demand for a spiritual revival. In so far as that demand is for a reorientation of values, new ideals as the guiding purposes of human life, it is the province of religion and philosophy to formulate the aspirations of countless millions in acceptable concepts. Administration and organisation cannot be more than means to ends. And they may be directed with great efficiency to bad ends as well as to good.

But in so far as current ethics, our ideas of the good life, are founded on rules designed to perfect the task of living together,

it would be a mistake to imagine that such a revival can be in terms of the past. It can only succeed if it is adapted to the circumstances of the present. The outstanding fact about those circumstances is that modern science and its application in power-driven machinery are inescapable elements in wealth and welfare. These new forces, this immense accretion of knowledge and power, have detonated a revolution in culture which demands imperatively a corresponding revolution in our institutions.

Such a revolution must issue in a long series of conflicts, internal and external wars, if attempts are made to guide it by the methods evolved from and designed to deal with an earlier situation. To attempt merely to revive older spiritual values, to seek to revitalise only the ethical standards adapted to the culture of the past, is to court failure. However selfless the inspiration of those who make such efforts, they must founder on an anachronism of method. New ethical and spiritual values must be forged, based on and adapted to the culture of the present and of the future.

The emergence of *principles* of administration is one indication of the direction such values are likely to take, must take, if we are to solve the problems facing our civilisation. Only when such principles have been perfected and generally accepted, as a norm of conduct within and between social groups, shall we possess an awareness of the problems of social control and methods of meeting them commensurate with the immense power over material things which modern science has placed in our hands. Only when violence to such principles is regarded as anti-social in the same sense as forgery and murder are regarded as anti-social shall we possess the moral equipment and the common sanctions equivalent to, and essential if we are to live on terms with, steam and electricity.

It is no accident that the outlines of such principles have appeared first in industry and in the most modern of our industries. Custom is a great stabiliser in social living. The human mind accepts change far more slowly with reference to institutions and habitual ways of thinking, than with reference to the tools it employs or the new facilities it is prepared to take into use. But despite the frank individualism of a hedonistic economics, practical industrialists in actual contact with the machines, whose task has been to make them work, have been unable to escape the irresistible logic which they impose. They have been led to the methods involving maximum effectiveness, however inconsistent such methods may be with current economic theory.

That is why modern conceptions of management—the business term for administration—first took shape in a branch of engineering, machine tools, in which at the time technical evolution was extremely rapid. That is why, all over the world, some of the earliest machine technologies—coal-mining and textiles, for instance—are notoriously slower than other industries in adopting such methods of control. The, perhaps unfortunate, phrase “Scientific Management” was merely an affirmation that the methods of thought, the respect for natural law, which inspired the work of chemists and engineers, could and should be applied to the human arrangements underlying the use of the new and powerful tools they had evolved.

For the same reason—their lack of contact with the machines—these ideas penetrate other circles much more slowly. Financial groups not in immediate touch with manufacturing industry, those engaged in public administration, artists of all types, academic workers in non-scientific subjects are much less ready to accept modern ideas about administration than their colleagues in industry. And one of the problems of our time is to bridge the widening mental gulf between those educated and trained solely in the humanities and those whose minds are shaped by a life devoted to that machine technology on which all are increasingly dependent for the material bases of existence. On the speed with which we evolve mechanisms for meeting that problem will depend in great measure the pace at which civilisation escapes from the divergences of attitude of which the present world war is only a symptom.

To say that new values, a new code, are necessary as the basis of social living, is not to say that the old values will or should disappear. They should remain as the criteria of conduct between men regarded as individuals. But the old antithesis between the State and the individual is a misleading simplification. Under present conditions every individual is a member of many states. This increase in the degree of social grouping and in its impact on every man is a fact, inescapable. And it is the prolixity and complexity of the relations thus created, the new loyalties instituted thereby not only between individuals but between group and group, which demand new standards to supplement the old. That there will be resemblance between them is probable. The root of all constructive social relations is integrity; but, new ways of integration are needed to meet larger problems. The

exhaust of an aircraft screaming across the sky may trace the same patterns as a child's pencil squeaking across a slate. But the child must learn new co-ordinations before it is a pilot. And in the art of administration we are as yet barely adolescent.

,L. URWICK.

## BIBLIOGRAPHY

L. URWICK. *Scientific Principles of Organisation.*

H. S. DENNISOF. *Organisation Engineering.*

M. P. FOLLETT (ed. H. C. METCALF and L. URWICK). *Dynamic Administration.*

Ed. LUTHER GULICK and L. URWICK. *Papers on the Science of Administration.*

HENRI FAYOL. *Industrial and General Administration.*

J. D. MOONEY and A. C. REILEY. *Onward Industry.*

## CHAPTER I

# THE NATURE OF ADMINISTRATION AND THE GENERAL SCHEME OF ANALYSIS

### *Theory and Practice*

A MODERN historian wrote of this country in the middle of the last century that—

“A happy inability to apprehend general ideas appeared to stand between the people of England and their disturbing impact. At their approach the public mind almost invariably ceased to function, or conscious of its limitations, turned eagerly in other directions. In Great Britain the pursuit of theory was left to professed theorists, while an obstinately practical community eschewed the primrose path of general ideas and confined itself austere to the solution of practical problems.”<sup>1</sup>

This temper is still common among British Administrators of all types, whether in business or in other walks of life. Indeed it has recently been claimed as a virtue for the group of higher civil servants who administer our great public departments that their way of looking at things corresponds with that of “the mass of English professional men.” They have “much the same working creed in practical affairs, the same ethical standards, political beliefs and working habits.” This official norm has been described as “stoical realism.”<sup>2</sup>

To discuss Administration in terms of principle is therefore an undertaking of some temerity. It must inevitably encounter the impatience of so-called “practical men” with theory, with ideas. At the same time he would be a bold man who would venture to claim that the country is satisfied with the organisation and administration of its war-time activities, that the best possible use is being made of its productive resources, of the skill of its scientists, and of the enthusiasm and energy of men and women of all classes. On the contrary there is a widespread sense of frustration, abundant evidence of waste and countless instances of muddle and misunderstanding.

<sup>1</sup> Philip Guedalla, *The Hundred Years*, pp. 64, 65.

<sup>2</sup> H. E. Dale, *The Higher Civil Service*.

There is no quick or easy cure for these difficulties. Patching and improvisation are likely to make the confusion worse confounded. Nor are complacency and self-justification on the part of those in responsible positions, or criticism by those who are not, likely to prove helpful. There is one way and one way only out of a condition of administrative indisposition, a clear determination by all concerned, whether in office or out of it, that administrative practice shall be improved. And such improvement must start with theory, with ideas—clearer thinking by everyone as to the nature of administration and as to the methods by which sound principles can be applied to actual situations.

In other words, lack of administrative skill can only be cured by persuading administrators to become more skilful. And the root of any real progress in this direction must necessarily lie in ideas, in theory—better ideas about how to administer. It cannot start with full-fledged plans and schemes, all complete with model rulings and a photograph of the latest machine. It is not in the nature of administrative skill to germinate in this way.

The ability to administer other people is a skill, an art. It is not just something a man is born with or born without—it is not just a body of knowledge. An individual may have natural disabilities for this particular profession. . . . He may be a successful practical administrator with very little learning in the latest theory of the subject, like the good general practitioner who has forgotten all that the medical schools ever taught him, but in the interval has read deeply in the book of life and death—sufficiently deeply to know how little he can know, which is a great safeguard for his patients. But he will be a better administrator, as a doctor will be a better doctor, if he manages to keep abreast of the latest thought on the subject. Broadly speaking, and for the common run of men and women, administrative skill is very comparable with medical skill. It is a practical art, and practice is essential to make it perfect—much practice. But practice wholly divorced from study is as likely to be limited in its results as study undisciplined by practice is likely to prove sterile and misleading. Francis Bacon put the point a good many decades ago:

“To spend too much time in studies is Sloth; to use them too much for Ornament is Affectation; to make Judgement wholly by their rules is the Humour of a Scholler. They perfect Nature and are perfected by Experience: for Naturall Abilities are like

Naturall Plants, they need Proynnyng by Study. And Studies themselves doe give forth Directions too much at large unless they be bounded in by experience."<sup>3</sup>

Or to quote a more recent writer, himself a medical man of great wisdom, the fruits of a long and successful career:

"The man of affairs without science is like the physician who has fallen out of the anatomy and physiology he may once have known; within limits he may be a shrewder and abler practitioner than an academic professor; but this he will be at the cost of being stationary. . . . To principles, sooner or later, the subtlest craftsman has to bow his head; for, even while his hand is on his tools, by theory contingencies and complications are being detected and eliminated, and processes shortened and economised."<sup>4</sup>

### *The Danger of the Easy Remedy*

But whether in medicine or administration it is dangerous to rely on "potted" knowledge. There is more to surgery than the study of a few designs in a textbook of anatomy. To be able to recite a list of symptoms is not diagnosis. All the same, despite those obvious truths, most human beings share a weakness in favour of the quick answer, the specific, easy remedy which doesn't require the painful discipline of thought as their contribution to the process.

More than one employer has been sold a punched card installation under the impression that by writing a cheque for a few thousand pounds he could "buy" efficiency. After all, the sorting machine worked so fast and was so systematic, it must of itself overcome the muddle in the office. Administrative skill cannot be bought. There are no hints and tips and short cuts. It has to be paid for in the only currency which is sound in this market—hard study and harder thinking, mastery of intellectual principles reinforced by genuine reflection on actual problems, for which the individual has real responsibility. All books can do is to help towards a first understanding of some of the principles.

### *Fayol's Analysis of Administration*

Henri Fayol was a famous French industrialist. For thirty years he was Managing Director of one of the largest coal and iron

<sup>3</sup> *Essays*.

<sup>4</sup> T. E. Allbutt, *On Professional Education*.

combines in the country. When he took it over it was on the verge of bankruptcy. When he retired it was brilliantly successful, with an exceptionally strong balance sheet. Towards the end of his life he tried to reduce to a logical form the principles on which his success as an administrator had been built up. He always insisted that that success had nothing difficult or unusual about it: it followed simply and logically from strict adherence to principle. His *General and Industrial Administration* has probably had more influence on ideas of business management in Europe, and especially in the Latin countries, than any other work. In this country it is less well known, though an English translation is available.

He analysed the operations which occur in business into six main groups—technical, commercial, financial, security, accounting and administrative operations. Thus he regarded Administration merely as one of a group of major functions. "Administration, regarded in this way," he wrote, "must not be confused with government. To govern is to conduct an undertaking towards its objective by seeking to make the best possible use of all the resources at its disposal; it is, in fact, to ensure the smooth working of the six essential functions. Administration is only one of these functions, but the managers of big concerns spend so much of their time on it, that their jobs seem to consist solely of administration."<sup>5</sup>

He broke down this key function of Administration into five main aspects—to plan, to organise, to command, to co-ordinate, and to control. But the word he used, *prévoyance*, which has been translated "to plan," really covers two functions. "*Prévoir* [literally "to foresee"] as used here means both to foretell the future and to prepare for it." In other words, the one term meant both forecasting and planning.

These six aspects of administration fall into two main groups related as to process and effect. That is to say:

*Forecasting leads to a Plan.*  
*Organisation has as its object Co-ordination, while*  
*Command issues in Control.*

Now, the most distinguished American authors who have written on the theory of organisation, Mr. J. D. Mooney, late President

<sup>5</sup> *Administration Industrielle et Générale*, p. 59. English Edition, p. 35.

of the General Motors Export Corporation, and Mr. A. C. Reiley, adopted a logical scheme from a German author, Louis F. Anderson. This postulated:

First, that every principle has its process and effect, and

Second, that if these have been correctly identified, the 'process and effect will, in their turn, be found to have, each of them, a principle, process and effect.

thus completing a logical square of nine items.<sup>6</sup>

Taylor's analysis was simply concerned with aspects of Administration, with operations. But elsewhere he lists, somewhat empirically, sixteen Administrative Duties and fourteen Principles, some of which overlap. The second of his Administrative Duties provides a very sound principle on which to base forecasting, viz., *Appropriateness*—"see that the human and material organisation are suitable." His Fourteenth Administrative Duty, which is also his Twelfth Principle, equally provides a principle on which to base planning, viz. *Order*—"ensure material and human order."

### *Research: The Underlying Principle*

Thus the logical square is completed with the exception of the principle underlying the whole process of Administration. And here it is not unduly straining probability to imagine that Fayol himself would have inserted *Investigation*. Certainly to students of scientific management, the idea of research into facts as the basis of all activity is fundamental. And every writer of note on the subject is at one on the point. For instance, Mary Parker Follett, in the last lecture which she delivered in public before her death, wrote:

"I have given four principles of organisation. The underpinning of these is information based on Research."<sup>7</sup>

F. W. Taylor, when he first attempted to reduce his practice to generalisations, put first of "the new duties" devolving on management:

<sup>6</sup> *Vide Onward Industry* (Harper and Bros., New York and London, 1931), quoting Louis F. Anderson, *Das Logische, seine Gesetze und Kategorien* (Felix Meiner, Leipzig, 1929).

<sup>7</sup> "Individualism in a Planned Society" in *Dynamic Administration*, edited by H. C. Metcalf and L. Urwick (Sir Isaac Pitman & Sons, Ltd., London).

'“They develop a science for each element of a man's work which replaces the old rule of thumb method.”<sup>1</sup>

And later:

“Both sides must recognise as essential the substitution of exact scientific investigation and knowledge for the old individual judgement or opinion”.

These three principles, each with its corresponding process and effect, make up the perfect logical square summarising the main aspects of Administration. The underlying principle on which the whole art rests is *Investigation*. It enters into process with *Forecasting* and the effect is a Plan or *Planning*. *Forecasting* has its own principle, namely, *Appropriateness*. It enters into process with *Organisation*, since the first thing you do when you look ahead is to try to provide the means, human and material, to meet the future situation which you foresee. Its effect is *Co-ordination*. Finally, *Planning* finds its principle in *Order*, enters into process with *Command*, and the effect is *Control*.

This arrangement of the material is shown in tabular form in Figure I.

<sup>1</sup> *Principles of Scientific Management*.

<sup>2</sup> Hearings before Special Committee of the House of Representatives to investigate the Taylor and other systems of Shop Management 1912. V. iii. F. W. Taylor's evidence.

FIGURE I

**THE PRINCIPLES OF ADMINISTRATION**

("Administration must not be confused with government. To govern is to conduct an undertaking towards its objective by seeking to make the best possible use of all the resources at its disposal; it is, in fact, to ensure the smooth working of the six essential functions. Administration is only one of these functions.") The general objective and broad policy of any undertaking are therefore "given" before administration starts.

| 1. PRINCIPLE                                                                                                                                                                                                                                                                     | 2. PROCESS                                                                                                                                | 3. EFFECT                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>1. INVESTIGATION</b><br>All scientific procedure is based on investigation of the facts, which thus becomes the first principle of administration.                                                                                                                            | <b>FORECASTING</b><br>Investigation enters into process with forecasting.                                                                 | <b>PLANNING</b><br>And takes effect in a plan.                                          |
| <b>FORECASTING</b><br>must be in terms which correspond with the realities of the situation, i.e. with the general objective and broad policy of the undertaking ("See that the plan of operations is carefully prepared"—A.D.1). It therefore finds its underlying principle in |                                                                                                                                           |                                                                                         |
| <b>2. APPROPRIATENESS</b><br>("See that the human and material organisation are suitable for the objects, resources and needs of the undertaking"—A.D.2).                                                                                                                        | <b>ORGANISATION</b><br>Forecasting enters into process with the provision of a suitable organisation.                                     | <b>CO-ORDINATION</b><br>And takes effect in co-ordination.                              |
| <b>PLANNING</b><br>The purpose of planning is to secure systematic action in accordance with the general objective and broad policy of the undertaking ("See that the plan of operations is strictly carried out"—A.D.1). It therefore finds its underlying principle in         |                                                                                                                                           |                                                                                         |
| <b>3. ORDER</b><br>("Ensure material and human order"—A.D.14 and P.10).                                                                                                                                                                                                          | <b>COMMAND</b><br>Planning enters into process with command ("Establish a management which is competent and has unity of purpose"—A.D.3). | <b>CONTROL</b><br>And takes effect in control ("Subject everything to control"—A.D.15). |

**NOTES**

(a) Quotations in brackets are from Henri Fayol's *General and Industrial Administration*. References are to his lists of Administrative Duties (A.D.) and Principles (P.).

(b) Fayol does not give the principles of Investigation, Appropriateness and Order. His analysis deals only with actions. But as will be seen they are implied in his list of Administrative Duties.

## CHAPTER II

### FORECASTING

#### *The Principles of Research*

To admit that investigation or research is the principle which must underlie the process of forecasting is to say the most important thing about this aspect of administration.

But investigation itself can only be arranged and carried through successfully in the light of certain intellectual principles, firmly held and strictly adhered to by those directing research activities. These may be summarised briefly as follows:—

(a) *The Principle of Determinism.* Every social phenomenon is the result of definite and ascertainable causes.

Without this underlying belief in causation and in the possibility of tracing effects back to their basic causes, no investigation work can be pursued with energy and enthusiasm.

(b) *The Principle of Relation.* Facts which are to form the basis of action must be in terms of the environment in which the action takes place. This involves

(c) *The Principle of Analysis.* The scheme of classification must be appropriate to the activity investigated.

(d) *The Principle of Definition.* The facts must be stated in terms which correspond with the underlying sciences on which the activity investigated is based.

(e) *The Principle of Measurement.* The facts must be stated in terms of definite units or standards.<sup>1</sup>

In other words, research into social phenomena must be realistic and adapted to the material in which it works. Categories, terms and units must correspond both to the nature of the activity investigated and to the exact knowledge on which that activity has been built up. Only in such conditions are the results likely to prove either useful or acceptable.

<sup>1</sup> cf. L. Urwick, "The Principles of Direction and Control," in the *Dictionary of Industrial Administration* (Sir Isaac Pitman & Son Ltd., London), reprinted in *Cost and Production Handbook* (The Ronald Press, New York).

*The Limited Use of Forecasting*

With regard to forecasting it is necessary to realise—

- (i) How pervasive a feature of business, and indeed of all human activities, are attempts to form a judgment about the probable trend of events.
- (ii) How new is the idea of a conscious attempt to weigh up future probabilities in an exact way.
- (iii) How comparatively undeveloped are our methods of using the scientific data which are available.

Almost any problem met with in business postulates an element of forecasting. The man who starts a business is making an assessment of a future demand for its products. The man who determines a production programme for the next six months or twelve months is usually also basing it on some calculation of future demand. The man who engages staff, and particularly young staff, usually has an eye to future organisational requirements. The man who buys, buys in anticipation of some specified use of materials. The man who sells tries to picture to himself the drift and composition of market requirements in different areas.

*The Measurement of Economic Factors*

Every conceivable business decision involves some element of this prognostication. But the field in which the idea of deliberate measurement of statistical trends as a guide to such decisions has won most general acceptance is the financial field. Financial data manifestly lend themselves to statistical presentation. Such indices of financial conditions as the bank rate, exchange levels, and so on, can be tabulated or presented graphically over a long period of years.

Some years ago a very senior Yorkshire Manager of great wit and wisdom was responsible for the investment of a large trust fund, a task which he discharged brilliantly. When his colleagues enquired as to the basis of his success he would usually answer: "Eh, lad, I ring up my broker and ask for his advice; and then I do the opposite. You see, brokers think in short terms, and it's my job to take the long view."

He was pleasantly cynical about efforts to introduce Scientific

Management concepts into what was at that time an old family business. His comment took the line: "You young fellows with your charts and diagrams and what not. Look at me. I never fuss with any of these things. But I get the results." Some of his friends were much amused to discover one day that he kept in his office a very elaborate chart of the movement of money rates, return on Government stocks, etc., which went back to before the Napoleonic wars. He never made a really important investment without taking a glance at it and trying to determine in his mind what were the factors likely to make the current curves project on the same lines as in the past, whether there were any new and disturbing elements in the situation and so on. This technique had guided him through the European war of 1914-1918 and its aftermath—as related, with outstanding success.

The tendency towards a specific measurement of economic factors prior to business decisions has made considerable progress in the last two decades. In the United States it became almost too much of a good thing. The American Management Association still publishes a monthly summary of the forecasts of business conditions issued by some dozen different agencies. In this country there is the London-Cambridge Economic Service. The Bank of England has an official "Economist." Many brokers also employ economic and statistical specialists to try to help them to forecast the probable trend of economic events either in particular industries or generally.

Broadly speaking, it is recognition of the cyclical character of economic activity which underlies this very widespread effort to prophesy wisely. And this portion of the subject has two distinct aspects. There is the effort of the individual business to provide itself with the facts which will enable it to pin-point its own position on the general curve of prosperity and depression. This effort should enable it to buy more appropriately as to times and quantities; to handle its financial arrangements with a smaller margin of error, and generally to plan its course with less dependence on speculation. There is the wider hope that a greater volume of accumulated knowledge on the subject will enable us to come to a clearer understanding of the *causes* of the variations in general business conditions, and ultimately to control them. Indeed, the mere effect of accumulated knowledge must be beneficial in damping down extreme oscillation, since the larger the number of undertakings which are making a conscious effort

to forecast on a basis of facts, the fewer will be the number caught short and forced to meet their commitments by sacrificial realisations or other panic measures.

While it is in the financial field that the possibilities of forecasting have been most fully developed and most clearly appreciated, there is, of course, hardly a business decision which does not involve this aspect of policy formation. For instance, the increasingly widespread practice of controlling salesmen by means of specific quotas postulates the formulation of a definite sales forecast.

### *Forecasting Staff Requirements*

It is the same with staff. The Chairman of a big company once said to one of his assistants, "Can you illustrate for me the position of this business over the next twenty years from the standpoint of administrative staff?" So the assistant took two organisation charts of the business and a lot of coloured stickers. Each colour represented a date five years ahead, ten years ahead, and so on. The business had a pension scheme with a retiring age of sixty-five. So, using the retiring age only, the assistant blocked out on one chart all the names of those who would be gone at the end of five years with one colour, at the end of ten years with another colour, and so on. Then he showed the two charts to the Chairman, and said: "The position is a little worse than I have shown it. You must allow something for illness, premature retirement, and so on. But, broadly, that shows what will happen."

The Chairman was quite pleased. He took the two charts to a Board Meeting to illustrate his point that the Directors must pay more attention to training forward younger men. In the next few days the assistant discovered that he was viewed with distaste by almost all the other Directors. There is no subject the average group of human beings is more anxious to avoid than contemplation of the organisation with which they are associated relieved of their unique contribution. That is one of the factors which militates against the development of a sound and scientific method of handling personnel problems. Nearly everyone regards adequate forecasting as an unpleasant and painful subject, to which it is tactless to call attention.

All the same, while it is perhaps best to keep it for quiet contemplation, every administrator should have a chart showing

the distribution of his staff by age and sex. Sometimes, when drawn up for the first time, it is a very revealing document. After all, even if it takes the form of an abnormal proportion of very young staff, an abnormal age distribution *must* mean trouble some time. Everyone grows older.

### *Study versus Shrewdness*

In this aspect of administration there is a world of difference between mere shrewdness and real study of a situation. Long before "forecasting" as a term was ever heard of, administrators of all kinds were trying to peer into the future. They were picturing to themselves this or that possible combination of events, how they would meet it, and so on. The accuracy and depth of their foresight was the measure of their success. But the experience of the individual is limited and the conclusions drawn from it are apt to be seriously biased by the peculiarities of temperament.

It is of great importance that those discharging high responsibilities should buttress themselves against these human limitations, which all share, to the best of their ability. And in the careful marshalling, measurement and presentation of statistical data, they have one instrument which will encourage detachment. A second stage, if the organisation is of sufficient size, is to make it someone's specialised duty to look ahead, to research into the facts likely to affect the undertaking, and to interpret the data thus provided. In smaller undertakings it should be a defined part of someone's duty to see that this is done.

This brings the argument full circle back to the first principle—Investigation. Used intelligently as the basis of prediction, it will save undertakings from many false steps and erroneous, because impromptu and unprepared, decisions. The important points to remember in this aspect of administration are really three:

(i) To recognise the existence and necessity of the function. Don't guess; don't decide without knowing why. Appreciate that the administrator has to prophesy, however little he may feel that he is among the prophets. He should be conscious about what he is doing; never drift into forecasts or into plans based upon them without recognising that there has been a deliberate estimate of what the future holds.

(ii) Investigate.

(iii) See that statistics and other data are expressed in terms which correspond with the realities of the situation. There is nothing more misleading than a figure which appears very dramatic and significant, but which is in fact irrelevant.

## CHAPTER III

### PLANNING

#### *A Practical Problem*

FORECASTING enters into process, with a plan or planning. The administrator, having made up his mind what the future holds, has got to do something about it.

"Planning" is in serious danger of becoming a "blessed" word, and a "blessed" word is one of the major curses of society. Everyone who has the very vaguest aspirations about the future talks generously about "economic planning," a "planned society," and so on. Some of the talk suggests the conclusion that the talkers couldn't make the arrangements for a school treat without muddling up the buns and the tennis balls. One of the wisest things which has been said on the subject in recent years comes from a lady already quoted—Mary Parker Follett:

"Those who are giving their time and thought to national planning are performing one of the most needed services in the world at the present moment; but I think that in their preoccupation with *what* needs to be done, they are not always giving enough attention to *how* it shall be done."<sup>1</sup>

That is the first thing to remember about planning—talking about it, the idea, doesn't get anyone very far. It is essentially a practical issue, a problem of method.

#### *The Principle of the Objective*

But before discussing the principles which should underlie planning methods, there is one general point to be made. It is impossible to plan in a void, about nothing; the conception of making a plan postulates that it is a plan *to do something*. There must be an objective. That sounds obvious. But if situations are analysed in detail it is quite extraordinary how many undertakings and parts of undertakings are discovered which are just going along by their own momentum, with only the very vaguest and most hazy idea of where they're trying to go or why.

<sup>1</sup> "Individualism in a Planned Society," in *Dynamic Administration*, p. 314.

Sir Ian Hamilton, in a book written just after the last war which is a mine of wisdom on problems of administration, gives one good example of this tendency:

"Even to-day there are people walking about outside Colney Hatch, sitting in a House supposed to be the negation of Colney Hatchism, who discuss and pass Army Estimates without insisting first on being given a list of every unit in the Army, with a marginal statement explaining the precise purpose this most expensive item is intended to serve. I say it is folly to raise a single company, squadron, or battery, before it is known exactly what place it is to take in some definite organisation authorised for some definite purpose."<sup>2</sup>

Many business men to-day, if asked what was their objective, would reply vaguely: "To make a profit, I suppose." But profit can be no more the objective of a business than betting is the objective of racing, making a score the objective of cricket, or eating is the objective of living. Profit is a stimulus to individuals who participate in business activities; sometimes it is an almost exclusive stimulus, just as one meets people who live to eat. But, and more important, it is also a measuring rod, a test, if a rough one, of the success with which the real objectives of the business are being attained. One must eat to live. And similarly, one cannot usually continue to conduct a business for long unless one makes a profit. But that stimulus and test cannot be the real objective of a business. To say so is almost equivalent to suggesting that one conducts one's business in order to keep accounts.

Economists have defined money as "the medium of exchange." And the true objective of any business undertaking must be to make or to distribute some product or service which the community needs. The proof that it is doing so is that in exchange the community will give rather more of other products and/or services than, in terms of the medium, money, have gone into producing it. But while "the proof of the pudding is in the eating," the pudding must first be made. And it is this primary objective, the exact nature of the product or service which the business exists to make or render, which is very often most imperfectly apprehended, still less defined.

<sup>2</sup> *The Soul and Body of an Army*, p. 55.

### *The Danger of Complexity*

It is usually this vagueness about objectives which tempts undertakings into the most prolific of all forms of waste, namely, complexity. If a business is making, for instance, sports goods, there is constant pressure on it to add to its range of products. There is the pressure from its own leaders; after all, most commercially-minded people have a dream of some marvellous new line just round the corner which is going to make their fortune. There is pressure from customers; every retailer likes to have something a little special. There is pressure from the public: how satisfying to the pride to have something no one else has got; for the great majority it is the only way to personal distinction.

An order was once placed on a famous glove factory for 100 dozen pairs of first quality ladies' gloves, all one size, and each pair different. Behind that lay a very human story of a small speciality shop behind the Opera in Paris, a very rich but otherwise undistinguished old gentleman and the exotique, if lovely, little gold digger, whose acquisition was the symbol to her master's world that his money was not mere pelf, but a ticket which had really drawn a prize in the lottery.

There is, too, the pressure of competition. Nothing irks the expansive salesman so much as the customer who hints delicately that if he cannot supply some unimportant variant on a standard line, one of the firm's competitors can and will.

All these pressures combine to push administration off the true line of progress, to render the determination of a clear and definite policy as to what the factory is going to make and the formulation of a coherent plan as to how it is going to make it, more difficult. One of the basic conditions of using mechanical equipment to the fullest advantage is that products should be as simple as possible and processes as standardised as possible, so that all processes may be meshed together. No factory is really efficient until the whole undertaking, particularly on its mechanical and technical sides, works like a single and well-oiled machine.

### *Simplification and Standardisation*

This clear-cut decisiveness as to what the product is going to be is fundamentally merely a special application of the principle of the objective. And the importance of this principle under modern

conditions of manufacture lies in the fact that unless and until the administrator has determined precisely what he is going to make, not in general, but in detail, it is impossible to begin to apply these fundamental principles of sound planning—simplification and standardisation. Instead of operating to a precise and pre-determined programme which he has worked out in the light of a known situation, he is forced into constant adaptation to a shifting situation. In other words, not he, but the market, is in control of the factory or department. He cannot simplify. He cannot standardise. He cannot plan.

It may be replied that this condition is inevitable, that the situation described is only a variant of the old saying that "the customer is always right." But this saying, like all phrases of its kind, is only true as a generalisation. "The customer" in the sense of the collectivity of customers, is always right. Obviously to manufacture for a demand which doesn't exist, is a "moonbeam from the larger lunacy." The individual customer must be treated as if he was always right; that is only ordinary business wisdom, not to mention courtesy. But to allow the individual idiosyncrasies of a wide range of customers to drive administration away from the principles on which it can manufacture most economically, is suicidal—the kind of good intention with which the road to hell, or bankruptcy, is proverbially paved. It is not in the customers' interests. They don't want to meet a cost swollen artificially by other people's passion to be "a little different." It is not in the manufacturer's interest. And it is certainly not in the interests of the community.

### *A War-Time Lesson*

One of the advantages to be snatched from the disaster of a great war is that problems are stripped of the verbiage and the conventions and the wishful thinking of ordinary times. It is so with this problem of planning—this principle, that it is impossible to plan economic life in a world dependent on power-driven machinery unless production is simplified and standardised. And no man can simplify and standardise production unless he can stabilise demand, at least for a period sufficient to repay in full the cost of changing patterns.

Now in war time there is no sickleness of public taste, no shifting competitive price, to prevent this. There is one objective, so to

organise national output as to yield the maximum volume of tanks or aeroplanes *of the right pattern*. As is usual in nature, except with snakes whose venom comes through the mouth, the sting is in the tail. *Of the right pattern*. . . . The country has discovered in just those words that it is as difficult to plan in war as in peace. Whereas in peace the unreliability of fashion and taste and competitive price impose upon the manufacturer an imperative flexibility, a "tolerance" to which all planning, however exact, must conform, so in war the changing techniques and terrains of combat, the ingenuity of inventors, the new experience of each action in the age-long indecision as between defence and attack, make for an equally imperative flexibility. Is there so much difference in principle between any man's wife telling him that last year's hat is "impossible," and this wing commander or that O.C. of a mechanised unit telling the Government that without the latest pattern of automatic gun-turret or that variety of tank it is equally impossible for him to win battles? If spending money is lacking, any man's wife may "adapt" last year's hat. But even adaptation slows down production.

### *The Principle of Flexibility*

There is no final compromise this side of eternity between the production engineer's dream of unlimited capital to make unlimited quantities of a single standardised article at a low cost, and the reality of life, of the demands of life, which insist that every plan must be flexible and every plant adaptable. Which makes the third principle in planning—flexibility.

But there is all the difference in the world between flexibility, which means absence of rigidity, and aimlessness, which means absence of any spine at all. A steel blade is flexible: if the steel is good enough it can be bent in a perfect circle till the point touches the hilt. When released, it springs back to the perfect alignment

"steel true and blade straight."

That is another characteristic of perfect planning of any kind. It gives to pressure, the pressure of demand. But the moment the pressure is relaxed it springs back with the minimum of unavoidable delay into straight-line production.

That is the problem which faces everyone who must make a

plan—to wring the maximum advantage possible from standardisation and simplification, and at the same time to retain always the full measure of flexibility postulated by the circumstances. Those who solve it are the productive geniuses of our age. Henry Ford has solved it time after time, though he came perilously near disaster when he hung on a year or two too long to his model T.

### *Planning to Meet Changes in Fashion*

It is the secret of the amazingly low costs of Bata, the former boot and shoe manufacturer of Czechoslovakia. His case was particularly interesting as a solution of the difficulty of adapting continuous production to a fashion article. Certain processes, which could be done more economically centrally and where changes in pattern produced the minimum dislocation of production flow, last-making, and the preparation of the leather, he centralised in large central departments. But the actual processes of making-up which varied with every pattern, he concentrated in small units, each of which was a complete shoe-making factory. The lasts and the leather were put on one end of a slow-moving conveyor and came off at the other end, a finished pair of boots or shoes ready to be boxed and despatched. Patterns calling for a similar cycle of processes were thrown on the same unit. No less quantity of any line was manufactured than would keep a single unit running for half a day and could be cleared through his retail outlets in three months. Any line not conforming to these two conditions was thrown out of the range.

Thus the workers always had a straight run. All change-over in machines and processes took place either in the luncheon interval or after the regular day's work was over. If general demand fell off, the factory was closed down a unit at a time, lines from that unit which were still required being transferred to the next most convenient unit, most convenient because most similar in respect of the series of processes involved. Any line moving more slowly in the market than was requisite for the most economical manufacture was eliminated automatically. At the same time a very wide variety of products was possible. It was an almost perfect example of production planning of a fashion article.

The principles which it suggests are two. First, there is nothing in sheer size. It is size related to the processes which are to be performed that counts. Where they are roughly similar for all

patterns, as with the lasts and the leather, a high degree of centralisation and unification is advantageous. Where they are dissimilar for different patterns of product the smallest size of productive unit compatible with the advantages of straight-line processing is the ideal because it is the most flexible. Secondly, that size is determined by the balance of processes. The size of the unit is fixed by the volume of the shortest process which will keep one worker and one machine fully employed. Other processes must be built up in multiples of that shortest process. If two or three short processes can be combined on the same machine, it may pay to do so even at the cost of some loss of productivity on each of those processes, because a much smaller productive unit can be kept in balance, and that means a higher degree of flexibility.

### *Balance*

The example of Henry Ford and his conveyor assembly work has led a good many people to exaggerate the advantages of a very minute subdivision of processes. Particularly where there is some intellectual content in the work, as for instance, with clerical tasks, such minute subdivision while it makes it possible to put almost untrained labour on to a job very quickly, also carries a number of concealed wastes. In the first place, the work makes no call on intelligence, and a worker who takes up clerical employment—indeed, all workers—usually do better where there is some demand on their intelligence and sense of responsibility. It may take a little longer to train them, but the cost is saved over and over again in accuracy and supervision. No amount of checking and inspection can overcome the proneness to error begotten of boredom.

In the second place the time and effort expended in securing that a partially processed piece of work passes from desk to desk or bench to bench, and often from room to room, where a highly subdivided chain of processes is applied to large-scale production of any kind, may well exceed the economy on each individual process secured by subdivision. Where each new worker, as with many clerical tasks, has to secure some grasp of the details of the job as a whole, the time this takes has to be multiplied by the number of processes the individual item passes through. Observation of Government Departments handling large numbers of individual cases suggests that there is insufficient appreciation of these limitations of the principle of subdivision of labour.

In other words, planning is not an end in itself. Frequently there is far too little planning. But such planning as is necessary and desirable is nevertheless an on-cost, and for that reason to be avoided where possible. It is incorrect to create unnecessary problems in planning, where by better balancing of producing units and arrangement of processes in simpler groupings, the necessity of formal detailed planning can be avoided altogether and replaced by ordinary human interest in doing a decent job. There is a hint in that principle for those who are dreaming too extravagantly about national planning.

This discussion of the subject is confined to principles—the objective, standardisation, simplification, flexibility, balance. No attempt has been made to avoid what some people describe as “mere theory.” But, in fact, these five principles lie at the root of all sound planning. And since every situation is different, an equal period spent in discussing planning *methods* would have resulted only in a wilderness of detail.

### *Mind Before Methods*

There are, of course, a vast variety of devices which can aid the planner—boards and graphic frames with moving tapes and “Kardex” and “Colourdex,” “Findex” and “Mindex,” and so on. But the essence of all these devices is the same. They provide an easy means of comparison between, on the one hand, the objective and the standards of performance, period by period, predetermined as the means of attaining it, and, on the other hand, the actual achievement week by week, day by day, hour by hour, and even minute by minute. If properly designed they reduce complex series of data to simple forms of expression which can be apprehended quickly by human minds with a limited span of attention. They throw up exceptions and emphasise deviations from what was anticipated. They jog the memory as to when this and that action is necessary. They are a reinforcement and an assistance to the mind. *But*, they are no substitute for it.

Planning is fundamentally an intellectual process, a mental predisposition to do things in an orderly way, to think before acting, and to act in the light of facts rather than of guesses. It is the antithesis of the gambling, the speculative tendency. And no devices are any substitute for the hard thinking which it demands. A very simple piece of planning in industry, for

instance, consisted merely of a return rendered each week of the outputs of various departments in various types of products. The various returns were summarised on a single sheet of foolscap and circulated to all concerned. But the production of the departments was kept in much better relation and balance thereafter. There was no elaborate equipment. But it was exceedingly effective.

This emphasises one final principle. Planning is not a matter of superimposing some new authority. Almost everyone is much too inclined to think of it in these terms. It is much more a question of providing existing authorities with information sufficient to enable them to co-ordinate their work effectively and accurately.

Every undertaking, whether it is business or government or commanding an army, does involve these two processes of forecasting and planning as an essential preliminary to effective action. If decisions are to bear any relation to reality, they must be based on some forecast of what the future holds. If action in accordance with the forecast is to be methodical and orderly, purposeful, and not at the mercy of each new circumstance, there must be a plan. The characteristics of a good plan are:

- (a) That it is based on a clearly defined objective.
- (b) That it is simple.
- (c) That it provides for a proper analysis and classification of actions, i.e., that it establishes standards.
- (d) That it is flexible.
- (e) That it is balanced.
- (f) That it uses available resources to the utmost before creating new authorities and new resources—really a special application of the principle of simplicity.

All these ideas are included in Fayol's single word, *prévoyance*.

## CHAPTER IV

### ORGANISATION AND CO-ORDINATION—PRINCIPLES

#### *Organisation a Technical Problem*

(THE word "organisation" as it is used here has a strictly limited and technical meaning. In common parlance the word is used very loosely. A man may be described as "a great organiser," because he is energetic and forceful and ruthless so that he secures quick results.) In fact, the application of those qualities to a delicate human situation may be calculated to make chaos of the various relationships which have hitherto governed the performance of the undertaking. The man is in fact an eminent disorganis<sup>er</sup>. When mistakes are made people often say, "there must be something wrong with the organisation." There is no "must" about it. The organisation in the technical sense may be excellent. But one or more people in key positions are nitwits and the chief is either unaware of it or too weak to get rid of them.

This looseness in using the word "organisation" is merely a special case of a general lack of precision in thinking and talking about social groups. The most important fact about all social groups is that each of them consists of human beings, each individual having a highly complex life of his or her own. The correct analogy in considering such groups must be the analogy with the living organism—the biological parallel. But men and women are still, as yet, unaccustomed to thinking scientifically about themselves and one another. For this reason, the mechanistic parallel can be very helpful in discussing organisation. Another name for it, of course, is "the engineering approach."

#### *The Engineering Approach*

If a man's automobile stalls he may abuse it and its maker in a first moment of pardonable irritation. But he does not imagine seriously that kissing its radiator or kicking its differential, still less putting it in a concentration camp, will be of great assistance. And if it happens to be a Model T Ford, he will not assume immediately that it is basically different from other kinds of automobiles. The assumption is that it came off much the same kind of assembly line as the rest, and that the only way to make

it go is to understand how it works. A universal acceptance of those two simple axioms with reference to human beings would simplify very greatly international and other arrangements. Similarly men distinguish quite clearly between building an automobile and driving it. And they break down the process of building it into design and manufacture. But when they deal with social groups they are very apt to apply the term "organisation" indifferently to *all* the parallel processes.

Here it is used strictly of the first process only—designing the machine. Building the machine, finding and training individuals to fill the various groups of duties and responsibilities which result from the design is part of that aspect of Administration which Fayol calls Command. Driving the machine, holding the individuals who have been selected and trained in constant correlation, is also in part Command and it is the whole of that aspect of Administration which Fayol has called Co-ordination.

Organisation considered strictly in this limited sense may be defined very simply as—

"determining what activities are necessary to any purpose (or 'plan') and arranging them in groups which may be assigned to individuals."

Manifestly that is a drawing-office job. It is a designing process. And it may be objected with a great deal of experience to support the contention that organisation is never done that way . . . human organisation. Nine times out of ten it is impossible to start with a clean sheet. The organiser has to make the best possible use of the human material that is already available. And in 80 out of those 90 per cent. of cases he has to change jobs round to fit the man; he can't change the man to fit the job. He can't sit down in a cold-blooded, detached spirit and draw an ideal structure, an optimum distribution of duties and responsibilities and relationships, and then expect the infinite variety of human nature to fit into it.

### *The Necessity of Planning*

To which the reply is that he can and he should. If he has not got a clean sheet, that is no earthly reason why he should not make the slight effort of imagination required to assume that he has a clean sheet. It is not impossible to forget provisionally the

personal facts—that old Brown is admirably methodical but wanting in initiative, that young Smith got into a mess with Robinson's wife and that the two men must be kept at opposite ends of the building, that Jones is one of those creatures who can think like a Wrangler about other people's duties but is given to periodic amnesia about certain aspects of his own.

He should never for a moment pretend that these difficulties don't exist. They do exist: they are realities. Nor, when he has drawn up an ideal plan of organisation, is it likely that he will be able to fit in all the existing human material perfectly. There will be small adjustments of the job to the man in all kinds of directions. But those adjustments can be made without harm, provided they are conscious adjustments, deliberate and temporary deviations from pattern in order to deal with idiosyncrasy. There is a world of difference between such modifications and drifting into an unworkable organisation because Green has a fancy for combining bits of two incompatible functions, or White is "empire building"—a technical term describing smash-and-grab raids on other people's responsibilities—or Black has always looked after the canteen, so when he is promoted to Sales Manager he might just as well continue to sell buns internally, though the main product of the business happens to be battleships.

What is suggested, is that problems of organisation should be handled *in the right order*. Personal adjustments must be made, in so far as they are necessary. But fewer of them will be necessary and they will present fewer deviations from what is logical and simple, if the organiser first makes a plan, a design—to which he would work if he had the ideal human material. He should expect to be driven from it here and there. But he will be driven from it far less and his machine will work much more smoothly if he *starts* with a plan. If he starts with a motley collection of human oddities and tries to organise to fit them all in, thinking first of their various shapes and sizes and colours, he may have a patch-work quilt; he will not have an organisation.

Human nature is a jig-saw puzzle in any large undertaking. Jig-saw experts view with scorn and derision the weak-minded people who look at the picture first. The whole point of the game is to start with a mixed heap of unrelated pieces and puzzle it out. To know from the beginning what the final design is like, is unsporting, like reading the last chapter of a detective story first. But, treating the organisation of social groups, which means

making or marring other peoples' lives, in this lighthearted and childish spirit is illogical, cruel, wasteful and inefficient. Every administrator should have posted up in his office Browning's lines

*"It's an awkward thing to play with souls,  
And matter enough to save one's own."*

*Lack of Design is Illogical, Cruel, Wasteful and Inefficient*

It is illogical because in good engineering practice design must come first. Similarly in good social practice design should come first. Logically it is inconceivable that any individual should be appointed to a position carrying a large salary, without a clear idea of the part which that position is meant to play in the general social pattern of which it is a component, the responsibilities and relationships attached to it, and the standard of performance which is expected in return for the expenditure. It is as stupid as to attempt to order an expensive piece of machinery without a specification.

It is cruel because the main sufferers from a lack of design in organisation are the individuals who work in the undertaking. If an employer buys a man without any clear idea in his own mind of the exact duties for which he requires him and the kind of qualifications needed to discharge those duties, the chances are that he will blame the man if the results do not correspond with his vague notion of what he wanted him for.

It is wasteful because unless jobs are clearly put together along lines of functional specialisation it is impossible to train new men to succeed to positions as the incumbents are promoted, resign or retire. A man cannot be trained to take over another's special personal experience: and yet if jobs are fitted to men rather than men to jobs that is precisely what the employer must try to do. Consequently, every change in personnel becomes a crisis, an experiment in personalities. It is difficult enough to find suitable individuals to fill positions of responsibility when one half of the equation is "given," that is, when the job is defined. When both the job and the man are uncertain, unknown quantities, hours and days are likely to be expended in fruitless discussion and indecision.

It is inefficient, because if an organisation is not founded on principles, then those directing it have nothing to fall back on but personalities. The personal touch is important. Kindliness, tact,

generosity of spirit as between colleagues are invaluable lubricants in any kind of undertaking: from superior to subordinate they are an obvious duty. But the administrator who tries to substitute amiability for definite planning in questions of organisation will find sooner rather than later that "the personal touch" issues in an epidemic of personal touchiness. Unless there are principles on which he can fall back and which are understood by everyone in the undertaking, it is inevitable that in matters of promotion and similar issues men will start "playing politics." And as Mary Follett has observed, within any undertaking "playing politics is a deplorable form of coercion."

Emphasis has been laid on this question of thinking consciously and technically about organisation, of laying out structure first and not thinking about individuals till structure has been determined, because it is still rare to find any general acceptance of this principle. The number of human institutions which do put correct structure first and politics second is very limited. The majority of social groups being left to grow like Topsy find, sooner rather than later, that Topsy has married Turvy.

In short, a very large proportion of the friction and confusion in current society, with its manifest consequences in human suffering, may be traced directly to faulty organisation in the structural sense. A machine will not run smoothly when fundamental engineering principles have been ignored in its construction. Attempts to run it will inevitably impose quite unnecessary and unbearable strain on its components.

### *The Principle of Continuity*

Apart from the effect on the existing situation, there is an important subsidiary principle applicable to organisation as a whole which makes it an imperative responsibility of the administrator that he should have a plan. That is the Principle of Continuity. Institutions in corporate form are usually, at all events in theory, immortal. Their potential life stretches far beyond the brief span of the individuals associated with them at any particular moment. And to provide for that future as well as for the present, is a direct obligation of those who administer them. Thus the structure should be such as to provide, not only for the activities immediately necessary to secure the objects of the enterprise, but for the continuation of such activities for the

full period of operation contemplated in its establishment. This involves a continuous supply of the necessary personnel and arrangements for the systematic improvement of every aspect of operation. Such continuity is impossible without a plan of organisation.

### *The "Practical Man" Fallacy*

There is a very general feeling that to be hazy and opportunist about organisation is in some mysterious way "practical," while to try to draw up proper charts and procedures is somehow "theoretical."

For this attitude of mind there are a number of reasons.

In the first place successful administrators, whose example and teaching must necessarily carry great influence, have usually been brought up in the empirical school. And by the time they are successful they are very apt to attribute their achievements to unique personal qualities rather than to adherence to principles. Their performance as organisers seems to them part of the "mystery" of their art, something which can only be conveyed by "experience," not something which can be reduced to writing and discussed by comparative apprentices.

In the early days of machine industry, the engineer was essentially a craftsman. He worked with his tools directly on his material. Many inventions and improvements were developed empirically at the bench, long before they were committed to paper. It was only gradually that the drawing office asserted its priority, ceasing merely to record and becoming the source of initiative. At a later stage, with the development of Scientific Management, further elements of the engineer's work were specialised in planning departments and specified for him on instruction cards. At both stages he felt some resentment at the changes in working habits and outlook involved. In the absence of any recognised science of the subject, administration has been hitherto a handicraft job. There is no reason why practical administrators should behave differently, either immediately or in the long run, from the engineer at his bench.

Moreover, in the absence of any general recognition of organisation principles, the successful administrator must perforce spend a great deal of his time "playing politics." It is the only way to get things done, however much he may dislike it. And, quite rightly,

the major part of his time and attention as an administrator will be absorbed by personal problems. He cannot escape them by planning his organisation first: he can only facilitate their solution.

Thus, even those, and they are rare, who are sufficiently detached and impersonal to be conscious of the nature of their own experience, are apt to be a little impatient with the structural aspect of organisation. Fayol, for instance, probably of successful industrialists the most advanced thinker of the last fifty years on the general question of administration, wrote on this subject:

“If we could eliminate the human factor, it would be easy enough to build up an organisation; anyone could do it if they had some idea of current practice and had the necessary capital. But we cannot build up an effective organisation simply by dividing men into groups and giving them functions; we must know how to adapt the organisation to the requirements of the case, and how to find the necessary men and put each one in the place where he can be of most service; we need, in fact, many substantial qualities.”<sup>1</sup>

Nevertheless, the effort to work out principles of organisation structure *first*, and apart from the personal problems which arise from them, is not only worth while from the standpoint of the individual, but is of immense social importance. It is also the most difficult of all the aspects of administration.

### *The Main Concepts*

The first task in any such attempt is to define terms. Four concepts are constantly recurring in discussion of organisation. They are:

*Duties*, which are the activities which the individual is required to perform by virtue of his membership in the organisation.

*Responsibility*, which is accountability for the performance of duties.

*Power*, which is the ability to get things done: that is to say, it is a function of knowledge, skill and personal qualities.

<sup>1</sup> *General and Industrial Organisation* (English translation), p. 46.

*Authority*, which is the right to require action of others. It may be

- (a) formal, i.e. conferred by the organisation;
- (b) technical, i.e. implicit in special knowledge or skill; or
- (c) personal, i.e. conferred by seniority or popularity.

The principles which should guide the administrator in "determining the activities necessary to any purpose and arranging them in groups which may be allotted to individuals" have been outlined by Moonoy and Reiley. They are given in outline in Figure II. It is particularly interesting to note that while Fayol's work was entirely unknown to Moonoy and Reiley when they wrote their comparative study of organisation in government, military, ecclesiastical and industrial undertakings,<sup>2</sup> and while Fayol, as has been shown, is impatient of logic in this field, in his aspects of administration and in his empirical lists of Principles and Administrative duties there are statements exactly corresponding to each of Moonoy and Reiley's nine principles.

#### *Applying the Principle of the Objective*

The first point to remember is the position of Organisation in the general scheme of administration (Figure I). It comes in the second line. It is the way by which forecasting enters into process. That is to say, it is not an end in itself; it is a means to an end. Because Administration is only one of the six essential functions in any undertaking, forecasting itself postulates a prior decision as to the main objective and general policy of the enterprise. Moreover, forecasting cannot take effect in a plan unless a great deal of detailed precision has been used in defining the objective. That applies also to Organisation and to every part of any organisation. The organisation should only exist in order to carry out some specific purpose implicit in the forecast and the plan. Every piece of it should make a definite and authorised contribution to that purpose. Otherwise there is no reason for its existence.

It is important to remember this, especially in examining an organisation already set up. Once an enterprise is in being jobs are created. That is to say, individuals secure emoluments and rank and other advantages from the existence of that piece of the organisation. The whole momentum of their customary habits of

<sup>2</sup> *Onward Industry.*

FIGURE II

## THE PRINCIPLES OF ORGANISATION AND CO-ORDINATION

The purpose of all organisation is to unify effort—that is, co-ordination. "This term expresses the principles of organisation *in toto*; nothing less. This does not mean that there are no subordinated principles; it simply means that all the others are contained in this one of co-ordination. The others are simply the principles through which co-ordination operates, and thus becomes effective" (p. 19). ("Co-ordinate operations and efforts"—A.D.4.)

| 1. PRINCIPLE                                                                                                                                                                    | 2. PROCESS                                                                                                                                                                            | 3. EFFECT                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. AUTHORITY</b><br><br>Co-ordination finds its principle in authority ("Unity of Command"—A.D.13 and P.4).                                                                  | <b>THE SCALAR PROCESS</b><br><br>Enters into process with the scalar chain, hierarchy or "line" ("The Hierarchy"—P.12).                                                               | <b>ASSIGNMENT AND INTEGRATION OF FUNCTIONS</b><br><br>And takes effect in the assignment and integration of functions ("Division of Labour"—P.1). |
| <b>2. LEADERSHIP</b><br><br>("Unity of management"—P.3.)                                                                                                                        | <b>THE SCALAR PROCESS</b><br>finds its principle in<br><br><b>DELEGATION</b><br><br>Leadership enters into process with delegation ("Encourage the desire for responsibility"—A.D.8). | <b>FUNCTIONAL DEFINITION</b><br><br>And takes effect in functional definition ("Define duties clearly"—A.D.7).                                    |
| <b>ASSIGNMENT AND INTEGRATION OF FUNCTIONS</b><br>"In all forms of organisation three main functions can be distinguished. These are related as principle, process and effect." |                                                                                                                                                                                       |                                                                                                                                                   |
| <b>3. DETERMINATIVE FUNCTIONALISM</b><br>(Legislative)<br><br>("Make decisions which are clear, distinct and precise"—A.D.5.)                                                   | <b>APPLICATIVE FUNCTIONALISM</b><br>(Executive)<br><br>("See that the plan of operations is strictly carried out"—A.D.1.)                                                             | <b>INTERPRETATIVE FUNCTIONALISM</b><br>(Judicial)<br><br>("Impose penalties for mistakes and blunders"—A.D.10 and P.2.)                           |

### NOTES

(a) The arrangement used in this table is taken from *Onward Industry*, by James D. Mooney and Alan C. Reiley, and the quotations and references not in brackets are from this book.

(b) As in Figure I, quotations and references in brackets are from Henri Fayol's *General and Industrial Administration*.

(c) The logical arrangement adopted by Mooney and Reiley and used in these figures is founded on *Das Logische, seine Gesetze und Kategorien*, by Louis F. Anderson (Leipzig, 1929).

work, both individual and collective, is added to the arguments for keeping that particular part of the organisation in action. In short, quite apart from the objectives of the undertaking considered as an entity, all kinds of personal and group incentives come into being internally, all directed positively towards maintaining the *status quo*.

It cannot be too strongly emphasised that these motives may have nothing whatever to do with the objectives of the organisation as such. They constitute a completely separate series of considerations which, if they run counter to the true objectives of the undertaking, should be eliminated or disregarded. To do so demands both vigilance and courage. Which is why little sections are found so commonly in every type of undertaking busily engaged in quite useless tasks—compiling regular statistics, for instance, to answer a question which was asked once five or ten years ago and has never been repeated since. The first questions which every Consultant asks himself in face of every job are: "What does this piece of work contribute towards the main objectives of this undertaking?" "Is it really necessary?"

### *Co-ordination*

The employment of more than one person towards a given end necessarily involves division of labour. The purpose of organisation is to secure that this division works smoothly, that there is unity of effort or, in other words, co-ordination. Mooney and Reiley wrote of co-ordination:

"This term expresses the principles of organisation *in toto*; nothing less. This does not mean that there are no subordinated principles, it simply means that all the others are contained in this one of co-ordination. The others are simply the principles through which co-ordination operates and becomes effective."<sup>3</sup>

Fayol placed it fourth in his list of Administrative Duties—"Co-ordinate operations and efforts." In so far as co-ordination is a dynamic activity, a process involving principles of its own, it will be discussed later. Here it is sufficient to note that it is the internal objective underlying all organisation. The purpose of the undertaking to which the organisation or a part of the organisation contributes is external. The purpose of organisation itself is co-ordination.

<sup>3</sup> *Onward Industry*, p. 19.

### *Authority*

Mooney and Reiley identified the principle at the root of the process of organisation as authority, by which they meant formal authority. Fayol repeated the same principle twice in his thirteenth Administrative Duty and fourth Principle—"Unity of Command." It is impossible to conceive of the existence of organisation at all unless some person or persons are in a position "to require action of others." The source of that authority is not significant in the study of organisation. It may be authority conferred by the agreement of those over whom it is exercised, as in a democratic State. It may be authority acquired because those over whom it is exercised have accepted a contract of employment, as in business enterprises in a capitalist society. It may be authority which adheres to ownership, as with the institution of slavery. It is interesting to note that Hitler, who enjoyed a more absolute dictatorship and a more effective apparatus for making things unpleasant for any of his compatriots disagreeing with him than any person in the history of Christendom, had, from time to time, to seek from the German people, at all events in form, a reaffirmation and extension of his authority.

It is true that the degree of authority exercised, and particularly the amount of reference required before action is taken, may affect the speed at which any given human organisation can be driven. And a failure to allocate the necessary authority at all at one or other of the essential levels or in respect of a vital function may cause organisation to work very badly. But that has nothing to do with the political philosophy on which the authority is founded. It is simply an example of ignorance of organisation principles and consequent bad management. As long as the possibility of a correct delegation of authority is provided for and is not inhibited by the constitutional practice, whether written or traditional, of the unit concerned, it is immaterial to the study of organisation whence it is derived.

### *Authority and Responsibility must correspond*

An addendum to the principle of authority is provided by F. W. Taylor. He pointed out that it is essential to the conception of authority that authority and responsibility should correspond. Any individual or group to whom is assigned authority for which

he is or they are not held accountable to someone will tend to exercise that authority with decreasing effectiveness. That is the root of the old saying that "power corrupts": it is "the Achilles heel" of autocracy in all its forms. To hold a group or individual accountable for activities of any kind without assigning to him or them the necessary authority to discharge that responsibility is manifestly both unsatisfactory and inequitable. It is of great importance to smooth working that at all levels authority and responsibility should be coterminous and coequal.

### *The Scalar Process*

Authority enters into process with what Moonney and Reiley have called "the scalar process." Just as "the supreme co-ordinating authority must rest somewhere and in some form in every organisation," so "it is equally essential to the very idea and concept of organisation that there must be a process, formal in character, through which this co-ordinating authority operates from the top throughout the entire structure of the organised body."<sup>4</sup>

They themselves comment that "this is the same form in organisation which is sometimes called hierarchical." Mayol gives as his ninth principle "the Hierarchy." It is unnecessary to comment on this obvious requirement except to utter a warning against the common assumption that the necessity for a scalar chain of authority implies that every action must climb painfully through every link in the chain, whether its course is upwards or downwards. Provided there is proper confidence and loyalty between superiors and subordinates, and both parties take the trouble to keep the other informed in matters in which they should have a concern, the "scalar process" does *not* imply that there should be no short cuts. It is concerned with authority and, provided the authority is recognised and no attempt is made to evade or to supersede it, there is ample room for avoiding in matters of action the childish practices of going upstairs one step at a time or running up one ladder and down another when there is nothing to prevent a direct approach on level ground. |

The correct cure for that kind of nonsense is a healthy and humorous contempt. A brilliant mock military manual called

<sup>4</sup> *Onward Industry*, p. 31.

*The Young Officer's Guide to Knowledge*, by "the Senior Major," contains the sage advice: "You are never asked for your reasons in writing unless it is strongly suspected that you have none." And that, in fact, is how, in the last war at all events, a well-led military formation worked. The "proper channels, the official channels," were there and were used to confirm and to record agreement already reached by far quicker and friendlier means of communication. If an officer had to use them before that point was attained, it was rightly regarded as a confession of failure, an admission that his organisational arrangements were not supported by good personal relations.

It is both right and proper that every organisation should have its formal scalar chain, just as every well-built house has its drainage system. But it is as unnecessary to use the formal channels exclusively or primarily as the sole means of communication as it is unnecessary to pass one's time in the drains.

### *Distinguishing and Correlating Functions*

The scalar chain differentiates between different levels or gradations of authority. Authority delegates part of its own authority over others. But always at the end there is the last link in the chain where what is delegated is not authority, but responsibility for the discharge of specific functions. Functionalism is used by Mooney and Reiley in this special sense to express differentiation or distinction between *different kinds of duties* as contrasted with *different levels of authority*. Always in organisation grouping of activities runs in these two contrary senses; one in which the dividing lines are vertical, indicating kinds or varieties of activity, and the other in which the dividing lines are horizontal, indicating levels of authority. It is impossible to fix any activity accurately in any organisation unless it is placed in *both* these senses, just as it is impossible to fix a point on a map or chart except in terms of both ordinates.

The end and aim of formal co-ordination within any undertaking is simply the correlation of functions, of all the detailed activities necessary to its purpose. The "scalar process" is not an end in itself. It is simply a means to the ultimate end of organisation, which is the assigning and correlation of functional activities. As already noted, wherever more than one person is engaged in any joint undertaking there must be division of labour. And this

actual phrase—"Division of Labour"—is used by Fayol as his first principle to express the same truth as is emphasised by Mooney and Reiley. Thus authority moves through the scalar process to the functional effect—assigning and correlating activities.

### *Specialisation*

F. W. Taylor, again, adds a most important subsidiary principle to this one of functional differentiation—the principle of specialisation. "The work of every person in the organisation should be confined as far as possible to the performance of a single leading function." More waste and friction occur in human organisations through failure to observe this principle, and there is more to be gained by its careful application, than in any other single direction. In one sense, it is only immemorial wisdom—"let the cobbler stick to his last."

But its infraction is equally immemorial folly. There is the constant human temptation for men to enlarge their area of responsibility in order to add to their sense of self-importance. There is the equally human tendency to resist like a bulldog the ablation of functions previously performed in a spirit of happy ignorance in order that that performance may be improved by specialisation. The things that the Royal Army Medical Corps said about Florence Nightingale when she pointed out that nursing should be specialised and entrusted to women are unprintable. The change seems commonplace now. The language employed at the time was extravagant. Nevertheless, specialisation is the way of progress in human organisation. It is exactly parallel in the mental sphere to the principle of simplification in the material sphere emphasised in connection with planning. Specialisation enables a man to think about one subject or one group of allied subjects with enormous economy in mental effort and consequent strengthening of the power and reach of his knowledge of his function. If it tempts him to know "more and more about less and less," that is due to faulty leadership or to defects in his basic education.

This consideration leads direct to the second line of the logical square. The Scalar Process has its own Principle, Process and Effect. The principle is Leadership, the process is Delegation and the effect is Functional Definition.

### *Leadership*

As Mooney and Reiley observe, "leadership represents authority, and it must possess all of the authority necessary to the exercise of its leadership."<sup>5</sup> There have been organisations where the supreme co-ordinating authority exercised its own leadership. Cases may be found in the autocratic empires of antiquity, and it may still happen in one-man proprietary businesses. But this is not generally true of any modern form of organisation. Usually the supreme co-ordinating authority appoints, elects or designates its leaders. Thus "leadership becomes the form which authority assumes where it enters into process."<sup>6</sup>

Where, for instance, the supreme "co-ordinating authority is in corporate form it cannot lead. Leadership is largely a psychological activity, a matter of personality and example. As a Chief of Staff of the United States Army once observed, "the leader must be everything that he desires his subordinates to be. Men think as their leaders think—and men know unerringly how their leaders think." A Council or Committee cannot by definition exercise this kind of personal inspiration. It is possible to feel enthusiasm for an individual. It is next door to impossible to experience enthusiasm for a collection of individuals, at all events all at the same time.

Failure to recognise this limitation in corporate forms of authority and to provide for subordinate leadership is a common organisational mistake in democratic countries. In English history the control of the Army in peace never worked well as long as the country was divided into twenty or more military districts. When these districts were reorganised into seven commands, the General Officers Commanding-in-Chief were big enough to supply the leadership which could not be expected of an Army Council. The more recent regionalisation of Post Office administration is another example. The Citrine Report recommended the appointment in each Region of a full-time Regional Director of Production. It was obvious that without provision for executive leadership the Regional Boards could not and would not work. As Boards they could not supply the necessary leadership: the central departments in Whitehall were too remote and were, moreover, in competition with each other for productive facilities.

It is interesting to note that, despite the tremendous concentration of authority in Nazi Germany, great attention was paid

<sup>5</sup> *Op. cit.*, p. 32.

<sup>6</sup> *Op. cit.*, p. 33.

to leadership in the modern German Army. William L. Shirer records from personal observation the sharp distinction between the French and German generals in 1940—the former “civilised, intellectual, frail, ailing old men, the latter a complete contrast. More than one not yet forty, most of them in the forties, a few at the very top in their fifties. And they have the characteristics of youth—dash, daring, imagination, initiative and physical prowess. General von Reichenau, Commander of a whole army in Poland, was the first to cross the Vistula River. He swam it.”<sup>7</sup>

The relations between officers and men were changed on similar lines. “In Paris I recall a Colonel who was treating a dozen privates to an excellent lunch in a little Basque restaurant off the Avenue de l’Opéra. When lunch was over, he drew, with all the care of a loving father, a plan for them to visit the sights of Paris. The respect of these ordinary soldiers for their Colonel would be hard to exaggerate. Yet it was not for his rank, but for the man.”<sup>8</sup>

This personal equation in leadership emphasises the importance of two subsidiary principles.

The first of these is “fair play.” The leader must be sensitive to the rights of all and take measures to ensure that they are maintained for every individual throughout the enterprise. As a corollary, the leaders must begin by playing fair with each other. As Mooney and Reiley observe: “One of the dangers involved in the growth of any industrial organisation is the struggle and lust for power that appears among the leaders themselves with the consequent loss of fine discipline and the subordination of the ambitions of the men at the top to the good of the group. Where such conditions appear it is not alone the subordinates who suffer. The very organisation itself is threatened with disintegration.”<sup>9</sup>

The second is the full acceptance by the leader of his own responsibility. The responsibility of a superior for the acts of his subordinates is absolute. This does not mean that a subordinate can never make a mistake or that his chief should never discuss him with his own superiors as a human being, with limitations as well as virtues. It does mean that a chief should never allow a subordinate to be criticised or penalised, except by himself, for any action taken by that subordinate within the chief’s area of responsibility. Only with a complete appreciation of and adherence

<sup>7</sup> *Berlin Diary*, p. 343.

<sup>8</sup> *Ibid.*, p. 346.

<sup>9</sup> *Onward Industry*, p. 34.

to that principle on the part of the chief can he expect loyalty and confidence from those working under him.

### *Delegation*

Leadership enters into process with delegation. Fayol expresses the same idea in his eighth Administrative Duty—"Encourage the desire for Responsibility." Without delegation no organisation can function effectively. Yet, lack of the courage to delegate properly and of knowledge how to do it, is one of the most general causes of failure in organisation. It is a problem older than history. When Jethro visited Moses, Moses was "staggering under the same problem that has killed many a modern business man." He was wise enough to take his father-in-law's advice. He—

"chose able men out of all Israel, and made them heads over the people, rulers of thousands, rulers of hundreds, rulers of fifties, and rulers of tens. And they judged the people at all seasons: *the hard cases they brought unto Moses, but every small matter they judged themselves.*"<sup>10</sup>

Two thousand years later it was still fresh enough to call forth F. W. Taylor's formulation of what he called "the exception principle."

As Mooney and Reiley record: "One of the tragedies of business experience is the frequency with which men, always efficient in anything they personally can do, will finally be crushed and fail under the weight of accumulated duties that they do not know and cannot learn how to delegate. Whether this condition is due to egotism which manifests itself in a distrust of the relative capacity of others, or to a training which has always been confined to a narrow horizon, and has thus destroyed the capacity to envisage greater undertakings, the effect is always the same. Under such conditions growth through delegation is absolutely prevented by the character of the leadership."<sup>11</sup>

Sir Ian Hamilton has given a vivid example from personal experience of how failure to delegate creates work:

"In 1896 I was Deputy Quartermaster-General at Simla; then, perhaps still, one of the hardest-worked billets in Asia. After a long office day, I used to get back home to dinner

<sup>10</sup> *Exod.* xviii.

<sup>11</sup> *Onward Industry*, p. 39.

pursued by a pile of files three or four feet high. The Quartermaster-General, my boss, was a clever, delightful work-glutton. So we sweated and ran together for a while a neck-and-neck race with our piles of files, but I was the younger, and he was the first to be ordered off by the doctors to Europe. Then I, at the age of forty-three, stepped into his shoes and became officiating Quartermaster-General in India. Unluckily, the Government at that moment was in a very stingy mood. They refused to provide pay to fill the post I was vacating and Sir George White, the C.-in-C., asked me to duplicate myself and do the double work. My heart sank, but there was nothing for it but to have a try. The day came; the Q.M.G. went home *and with him went the whole of his share of the work*. As for my own share, the hard twelve hours' task melted by some magic into the Socialists' dream of a six hours' day. How was that? Because when a question came up from one of the Departments, I had formerly been forced to compose a long minute upon it, explaining the case, putting my own views, and endeavouring to persuade the Quartermaster-General to accept them. He was a highly conscientious man and if he differed from me he liked to put on record his reasons—several pages of reasons. Or, if he agreed with me, still he liked to agree in his own words and 'put them on record.' Now, when I became Q.M.G. and D.Q.M.G. rolled into one, I studied the case as formerly, but there my work ended: I had not to persuade my own subordinates; I had no superior except the Commander-in-Chief, who was delighted to be left alone: I just gave an order—quite a simple matter unless a man's afraid: 'Yes,' I said, or 'No!'

"The moral of my reminiscence is plain: the higher up the ladder you climb the less you have to do; provided (1) you have some courage; (2) you have some trust; (3) you have your office so organised that you don't have to deal with more than three or four responsible heads. . . . *If big men are overwhelmed with detail it is always their own fault.*"<sup>12</sup>

### *The Span of Control*

The quotation emphasises a subsidiary principle bearing on delegation which has been worked out mathematically by Mr. Graicunas. No superior can supervise directly the work of more than five or,

<sup>12</sup> *The Soul and Body of an Army*, pp. 235, 236.

at the most, six subordinates whose work interlocks. The reason for this is simple. What is supervised is not only the individuals, but the permutations and combinations of the relationships between them. And while the former increase in arithmetical progression with the addition of each fresh subordinate, the latter increase by geometrical progression. If a superior adds a sixth to five immediate subordinates he increases his opportunity of delegation by 20 per cent. but he adds over 100 per cent. to the number of relationships he has to take into account. Because ultimately it is based on the limitations imposed by the human span of attention, this principle is called *The Span of Control*.<sup>13</sup>

### *Definition of Duties*

Delegation takes effect in functional definition, expressed by Fayol in his seventh Administrative Duty—"define duties clearly." It should be unnecessary to insist on the importance of precision in this matter. But the influence of vagueness in organisation on morale is not always fully appreciated.

To quote Mooney and Reiley once more:

"How often do we hear it said of business institutions that the organisations are all 'shot through' with politics. . . . Such conditions, when they exist, are really due to inattention on the part of the management to the necessities of formal organisation, and the application of its principles. . . . Management that is inattentive to the definition of subordinate functions is almost sure to be just as disorderly in the exercise of its own. . . . The opposite type of management, which regards the exact definition of every job and every function in its relation to other jobs and functions as of first importance, may sometimes appear excessively formalistic, but in its results it is justified by all business experience."<sup>14</sup>

### *Legislative, Executive and Judicial Functions*

Authority moves through the Scalar Process to the Assignment and Correlation of Functions. But while specific functions may become almost infinite in their variety, dependent on the complexity of the procedure necessary to attain the given purpose,

<sup>13</sup> F. "Relationship in Organisation," by V. A. Graicunas in *Papers in the Science of Administration*.

<sup>14</sup> *Onward Industry*, pp. 56, 57.

there is no conceivable duty, function or even individual job of any kind which does not belong to one of three broad classes. And these three classes are related as principle, process and effect. They are concerned respectively with one of three things, determining that something shall be done, doing that something and deciding questions that arise in doing it in accordance with predetermined rules and practices. These classes of activities are either determinative, applicative or interpretative, or—to use the terms common in writing of government—they are legislative, executive or judicial.

It may frequently happen that something of all three of these functions is present in the same job. But “the fact that functions may not be segregated in organisation does not in any way destroy their identity as functions.”<sup>15</sup> The task of the organiser is to secure the integrated correlation of *all* functions. To do this he must know that these three primary distinctions are present universally in organisation. He must identify them as they appear in every job and make them the basis of his correlation. •

This was what F. W. Taylor was doing in his system of functional foremanship. This was based on the distinction between planning and performing, which are merely other terms for “determinative” and “executive.” In the Planning Department were the order-of-work man, the instruction card man and the cost and time clerk. On the floor of the shop, i.e. in the Performing Department, were the gang boss, the speed boss, the repair boss and the inspector. An eighth foreman, also in the shop, was the disciplinarian responsible for adjusting grievances and settling disputes, thus representing the judicial function.

Fayol has similar principles. His fifth Administrative Duty reads, “Make decisions which are clear, distinct and precise”—determinative. His first Administrative Duty is “executive”—“See that the plan of operations is strictly carried out.” His second Principle and tenth Administrative Duty read: “Impose penalties for mistakes and blunders”—interpretative.

### *Failure to isolate the Judicial Function*

It will be noted that it is in this last principle that practical writers are least definite. That is merely a reflection of current practice in industry and indeed in public administration, where

<sup>15</sup> *Onward Industry*, p. 49.

the judicial function is seldom differentiated from the executive. As Mooney and Reiley comment:

"Business executives are about the only present-day counterparts of the governor judges of antiquity. Without intending any sinister implication, they may all be classed as modern Pontius Pilates, which means that they may initiate, judge and then execute their own sentences."<sup>18</sup>

In this respect the position of the industrial employee is in marked contrast to his rights and privileges considered as a citizen of a democratic community, as a member of his Church, or, as in wartime, temporarily a soldier. As a citizen of the State, he finds one agency, the legislature, determining the rules, a second, the executive or Civil Service, carrying them out, and a third and quite independent body, the judiciary, interpreting them and adjudicating in disputes. In the other two capacities he finds the same people executing and adjudicating. But the forms of procedure segregate the two functions very clearly. The members of ecclesiastical and military courts are chosen from among the executive officials. But when they sit in such courts, they cease to be officials and become judges; and they are so recognised in the most formal sense.

It is possible that the backwardness of modern industrial organisation in isolating the judicial function may lie at the root of much discontent with the system, though the cause is unrecognised and the sense of grievance is expressed in other ways. Certainly wider experiment in this direction is desirable, e.g. with such devices as Appeal Committees with an impartial Chairman. Experience of one such experiment gives no ground for any suggestion that it would weaken discipline.

It will be seen that this chapter has covered the nine principles of organisation and co-ordination listed by Mooney and Reiley and shown on Figure II, with parallels from Fayol and expansions from Taylor and others.

<sup>18</sup> *Onward Industry*, pp. 204, 205.

## CHAPTER V

### ORGANISATION AND CO-ORDINATION—METHODS

CONSIDERATION of the principles of Organisation and Co-ordination leads directly to the *methods* of applying such principles in practice.

#### *Differentiation of Executive Functions*

The first group of methods which calls for analysis is that employed in functional differentiation—that is, in dividing up activities according to kinds. Underlying all such functional differentiation is the broad division into the three main classes of determinative, applicative and interpretative functions, or legislative, executive and judicial, to use the terms of political science. But elements of these three main functions, as has been indicated, often appear in the same job. And while it is important to identify them so that correlation is secured, it is even more important that the boundaries of the groups of activities assigned to individuals should be correctly determined and clearly indicated. Otherwise, overlapping, duplication of work and confusion are unavoidable. And it becomes impossible to secure correspondence between authority and responsibility.

The great majority of the tasks found in most forms of organisation belong to the applicative or executive group. And it is consequently in terms of execution, of the work to be done, that functional differentiation is normally expressed. It follows that the process of definition consists of identifying the limits of each position, each group of activities.

Three broad methods of determining such limits are found in practice. These are the unitary, the serial and the subjectival. The last, which consists of assigning to a position responsibility for all activities concerning a particular subject or aspect of management and of determining its limits by reference to that subject, is commonly described as the "functional" method of organisation. But it seems preferable to retain the terms "function" and "functional" for use in the broader meaning given to them by Mooney and Reiley. The term "subjectival" appears to be more descriptive and also more accurate. The term "functional"

already has another technical meaning in medicine. The term "subjective," which might be considered as a shorter and more euphonious alternative, has a technical meaning in logic.

Under the unitary method the limits of each group of activities are determined with reference to persons, to things or to areas.

The first is most commonly found in armies. The centurion in the Roman Army was captain of a hundred men: in our own day a battalion commander is in command of the men "on the strength of" that battalion. Examples of the second are found in the Navy. A commander is in command of a ship, a rear-admiral of a fleet of ships: they are also in command of the men who man the ships, but usually only while they are with the ship. An alternative example of definition with reference to things is when a factory is divided into departments each making a certain group of its products. Definition with reference to area is common. An Assistant Sales Manager is placed in charge of North-Eastern England. Mr. Brown is responsible for the west block or the first-floor-rooms.

### *The Unitary Method*

The unitary method may become very complicated. For instance, the Ministry of Pensions is responsible for millions of individual cases. Its fundamental organisation is by persons. The first split in responsibility is between those cases arising from the 1914-18 War and those arising from World War Two. Those arising from World War Two are divided into Service and civilian claims. The Service claims are divided into those involving injury where the pensioner himself is the claimant, and those involving death which give rise to claims from various classes of dependants. The injury claims are divided into Army and Air Force claims on the one hand and Naval claims, which are handled separately. The Army and Air Force claims are subdivided into alphabetical blocks.

The problem of handling large numbers of individual cases arises again and again in the course of Government work, with members of the fighting Services and their dependants, with individuals for registration and rationing, with those liable to be called up for war service, and in many other directions. The system of dividing up individuals alphabetically is most unsatisfactory as a means of distributing work, especially where the

group to be handled is expanding rapidly, as in the case of fighting Services during a war. The distribution of names over the alphabet is never constant. And as expansion takes place sections on an alphabetical basis have constantly to be resplit, ledgers or card records divided, and so on. It is impossible to secure a constant balance of work between sections.

For the simplest solution is to divide numerically. One special kind of work in the Ministry of Pensions, where the problem was to deal with a constant influx of new cases, was divided into ten sections, to each of which was allocated all the numbers ending in one of the ciphers, 0 to 9. This kept the work of the different sections absolutely balanced and greatly simplified the staffing problem. But there is a rooted objection among citizens of this country to being known by a number. And until they can be persuaded to subdue this prejudice and to quote their numbers correctly, this method must involve the maintenance of a separate alphabetical index and frequent cross-reference to it in order to identify the office number of each case. All the same, numbers have such advantages over names as a basis of sub-division and identification that they should be applied in many more instances both in government and industry than is the practice at present, despite the disadvantage indicated. After all, a number can always be stamped on an address plate which, with a little method, can be used to head all documents.

### *The Serial Method*

The serial method, of course, occurs where, for instance, a product or products pass through a range of departments each equipped to carry out a particular process or group of processes—foundry, forge, machine shop, assembly, paint shop and so on. And this method can in theory be pushed to extreme lengths within the individual office or shop, so that each process becomes so elementary that it can be performed rapidly by a worker with little intelligence, training or skill. As was pointed out, however, in discussing planning, such extreme serialisation creates more problems than it solves. Where its object is to squeeze the quasi-mechanical and monotonous elements out of human labour, with the purpose of throwing them on to machines, it is in the line of progress. Where its underlying idea is to be able to treat human beings as if they were machines, it does violence to the nature of the

instrument employed. It is not only unscientific and unethical: it is also uneconomic.

A second variety of the serial method is where the limits of an activity are determined with reference to a particular type of equipment. All typewriters are pooled; all guns are organised in batteries and regiments; all lathes are put in a "lathe shop." It is not always recognised that such an arrangement is only a variety of serialisation. But in every case of the kind it will be found that the equipment is intended to carry out similar or identical processes in various procedures. It is grouped because of the advantages of specialised knowledge of that type of equipment. The guns are grouped in order to lay down barrages for various types of operation, the lathes to do a certain form of machining on various products, the typewriters to make different forms of record instead of pen-pushing.

Three subsidiary points may be noted with reference to the serial method. Where processes are becoming mechanical, it is undesirable to put them on to machines without first appreciating to the full that a machine is a machine: it has no brain. It is impossible to transfer hand-work demanding any element of intelligence or judgment to machinery directly. It can only be done successfully when those elements have been provided for in the system—that is, when the judgment and intelligence have been put into the planning and supervision of the classification of the material, its flow to the machine and so on. Many of the disasters which have occurred in mechanising clerical processes in this country would have been avoided if half the money, time and effort which have been devoted to selling office equipment and selecting among similar types of equipment had been expended in preparing to use it properly. Going to the motor show and putting down a cheque for this or that model, after an exhaustive study of catalogues, minute inspection of types and a monotony of trial runs, does *not*, after all, teach a man how to drive a car.

Even when processes have been mechanised, someone has to operate the machine. And the more perfect the machine, the more monotonous the residue of human work left behind. It is of importance to realise this and to make every effort to add to the interest of the job. This, *not* the payment of piece-rates or bonuses or other forms of financial stimulus, is the strongest argument for maintaining records of output. Even a monotonous job has some content of interest if the worker knows what his or her "score"

looks like. Records of output, used this way, and neither as a stick nor a carrot, can play a very useful part in assisting leadership—even where no financial incentive is present.

The argument for specialising control over particular types of equipment is *not* necessarily an argument for physical centralisation of every machine. It is easier for a supervisor to have every typewriter or every lathe in one room. But it is perfectly possible for a specialised supervisor of typewriting or lathe work to exercise sufficient control over operators in a dozen different places. His or her *specialised* knowledge is of the technique of typewriting or lathe work; any supervisor can look after ordinary hour-to-hour discipline. And where typing or lathe work forms an integral part of a series of other processes, the loss of time and disintegration caused by moving the work to some central point for the performance of that particular process often far outweigh the advantage of having the worker under the immediate eye of his or her specialised supervisor. This does not mean that central and specialised supervision should be eliminated. It is essential to efficiency. But the supervision should move about, not the work. That should flow along the shortest possible line.

Generally speaking, where the unitary or serial methods of organisation are used, the executive's authority and responsibility cover all the activities carried on within his sphere of control, though certain subjects may be reserved for higher specialised authority. Where this occurs, the executive tends to have very little concern with such subjects, whatever the nominal impact of his responsibility. He is much more likely to treat the subordinate personnel handling the matter within his sphere of control as specialists directly responsible to their specialised chief, with whom it is not his business to bother.

### *The Subjectival Method*

Finally, there is the subjectival, often called "*functional*," method of assigning activities. In this case the limits of each position are determined with reference to a particular subject or aspect of management, or a group of analogous subjects.

In certain aspects of management, where the need for a high degree of professional training has been recognised for a number of decades—engineering, accountancy, law and medicine are instances—the use of technical specialists with a considerable

degree of authority has been normal practice in industry for a considerable period. But the problem of integrating the authority of such specialists with that of the managers responsible for the day-to-day handling of the main activities of the undertaking has not always been solved very happily.

On the one hand, as indicated above, such managers, often encouraged by the chief of the specialised activity, have tended to wash their hands of subordinate specialists even when working within departments for which they were responsible. This has weakened co-ordination, particularly in the case of branch offices, factories, etc., geographically separated from headquarters. It occurs usually with reference to the well-established specialisations.

Alternatively, they have resented the suggestion that some subject which they had previously handled themselves should be specialised, and have opposed both covertly and overtly any transfer of authority to the specialist in charge of the subject. This has tended to occur more markedly with the new subjects which, broadly speaking, have only been isolated from the general body of management and regarded as demanding specialised handling within the last twenty years. They include Sales Management, Marketing Management, Purchasing, Office Management, Personnel Management, Technical Research, Costing and Planning.

### *The Necessity of Specialisation*

There is no question that the drift of events in all forms of undertaking is towards a greater degree of specialised authority, and hence to an increasing use of subjectival, as contrasted with unitary or serial, methods of organisation. Even in the relatively conservative field of public administration, the entirely new subject of Public Relations has been specialised within the last fifteen years. There is also no question that on the whole this tendency is sound and makes for a better ordering of affairs. It is in line with the Principle of Specialisation. So rapid has been the advance of scientific discovery in the last century and a half that it is increasingly difficult for the individual administrator to have even a nodding acquaintance with whole areas of knowledge essential to a correct appreciation of many aspects of his work. During the last half century there has been an even more rapid

development of the technique of management itself, a development which is still continuing, if not accelerating. It is difficult enough for an individual discharging a heavy daily task to keep abreast of the new ideas in one aspect of the field. It is impossible for any man to be fully informed on more than one aspect at the same time.

There is no suggestion that any one manager should specialise in one subject all his working life. That would tend to produce men of narrow views and to restrict the field of recruitment for co-ordinating positions. The point is that activities should be so distributed that, while any one manager is in a position, the position itself enforces specialisation. He should not be asked to be a Jack-of-all-trades, or he will certainly be master of none.

### *The Difficulties of Co-ordination*

Equally, there is no question that the subjectival method of distributing responsibilities does very much increase the difficulties of co-ordination, and that, generally speaking, insufficient thought and attention have been given to the problems which it raises in this direction. The reasons for this are obvious. With the unitary or serial methods, the limits of positions are concrete. Smith is under Brown, or he is not; Brown looks after lathes or assembly or block chocolate or what you will, or he does not; Smith works in a room, or a town is in Yorkshire, the room or Yorkshire respectively being Brown's area, or not. Whether the distribution of responsibility is satisfactory and effective or the reverse, there is not much room for dispute as to what, in fact, it is.

With the subjectival method, on the other hand, the limits are not concrete. They are abstract, in the realm of ideas. And even when every effort has been made to define them accurately, words are tricky things and have different meanings for different people. Some managers have a tendency to prefer other people's work to their own. Others have a flair for demarcation disputes. Yet others never go out of their way to look for work, but, when they have overlooked one of their own responsibilities, are most ingenious at proving that it belongs properly to one of their colleagues. The mere fact that the older unitary and serial methods did involve definite frontiers has made a good many people frontier-minded. Psychologically, they have an electrified

barbed-wire fence to keep off interlopers. Sir Arthur Quiller-Couch once wrote:

“The Anglo-Saxons, it is said, always built a wall around their houses. And that no doubt is good for a house. It is not so good for the mind.”

There is too, the difficulty which many subordinates find in obeying two masters, the man in charge of their subjectival speciality and the man immediately in charge of the unit in which they are for the moment working. If the two managers are at loggerheads and duties and relationships ill-defined, these difficulties may be real. But they can be very much exaggerated. The truth is that the subjectival method is new over large areas of business, and it still has to be “run in.” No one finds any difficulty in the Army in the conception that officers of specialist troops and services—artillery, engineers, supply, medical and so on—should belong to their own corps, to whom they look for promotion, training and technical methods, but should be under the immediate orders of a general commanding a division or army corps.

### *Levels of Authority and Responsibility*

Considerably less attention has hitherto been directed to methods of dividing up activities into levels. Men are far more prone to squabble about gradations of authority and responsibility than to think about them.

Broadly speaking, however, in almost every form of complex organisation, seven such levels may be distinguished, which involve, not gradations in the same kind of activity, but activities which differ in quality and character. These are:

(1) *Criticism and Review and/or Legislative.* There are the activities carried out by the Houses of Parliament in our British system of government, or by the shareholders in their corporate capacity in a limited liability company.

(2) *Governing Authority*, i.e. the activities carried out by the Cabinet or a board of directors in their corporate capacity.

(3) *Liaison between Policy and Operation.* This activity is not very clearly isolated in British practice. But it forms the most vital part of the duties of a Minister *vis-à-vis* the department

for which he is responsible: it is a view certainly held by many principal Civil Servants that it is *not* part of the duty of Ministers to lead their departments in any executive sense. In English business practice it is part of the duty of those members of the board of directors who also occupy executive positions as employees of the company (managing directors). In the Latin countries, which are inclined to be more logical in such matters, the activity is isolated. The office to which we give the title "director" is described as "member of the administrative council." The title "*directeur*" or "*directeur general*" is reserved for the principal executive officer of the company. But one or more "members of the administrative council" are known as "delegate administrators" and are expressly charged with the duty of liaison between the administrative council and the executive. It is interesting to note that they are not paid as employees of the company, but are assigned special additional fees as members of the administrative council.

(4) *Operating Authority*, i.e. the activity of the principal executive officer of any undertaking. In British Government practice this activity really falls to the leading permanent official in a department, the Under-Secretary of State or Permanent Under-Secretary. In British business it is the function of the managing director or the general manager, and in the United States of the president of a corporation.

(5) *Supervision of Operation*. This activity includes all those of every grade who exercise the delegated authority of the principal executive in supervising the work of others—in government the hierarchy of officials and in business the various ranks of managers, foremen and so on.

(6) *Operation*. At the end of any chain of authority the point is reached where what is delegated is not further authority, but responsibility for the discharge of specific functions. Such activities are operation. They may, of course, include activities of considerable importance and status, such as the work of a highly skilled research chemist or engineer.

(7) *Jurisdiction*. As has been indicated, this activity has at present developed little if any separate form as far as industry is concerned, though the Industrial Court is an obvious beginning of functional differentiation. In government, on the other hand, it is a completely independent part of the structure with its own hierarchy of officers, running from justices of the peace

to the Lord Chief Justice and of juridical institutions from petty sessions to the Judicial Committee of the Privy Council.

### *Supervision of Operation*

The analysis of activities into these seven levels obviously leaves one very broad group under "Supervision of Operation." Between the commander-in-chief of any army in the field and the private soldier there are approximately fourteen separate grades or ranks, omitting functional grades, such as battalion quartermaster-sergeant and company quartermaster-sergeant. In the British Civil Service between an Under-Secretary of State and a clerical officer there are ten grades or ranks, though some of these may overlap. In industry there is a more varied picture. In one typical manufacturing organisation employing 7,000 people there were nine grades between a rank-and-file worker and the Managing Director.

Very little constructive thought has so far been given to methods of determining the principles which should underlie the assignment of different executive grades. But in every situation two broad questions must form the basis of any analysis as far as grade is linked up with the actual work. They are:

- (a) What degree of supervision is exercised by the superior?
- (b) What is the degree of the subordinate's responsibility for results?

One classification based on these two questions and referring primarily to business undertakings has been worked out in the United States. It shows six grades and is illustrated in Figure III.

So closely, however, is status associated in the popular mind with seniority and the idea of reward for past services that this tendency constitutes a very real danger in democratic countries. It is, of course, vital to efficiency that function should be continuously correlated with capacity. And no human institution has ever suffered seriously from a tendency to bring on the ablest of its younger people too fast. In Great Britain the temptation has always been in the other direction. The "liquidation" of those who prove unequal to higher responsibilities, but who have acquired a status which is incompatible with less onerous duties is a constant problem in administration. Probably the solution to this difficulty lies along some distinction between status and function

FIGURE II

**LEVELS OF SUPERVISION OF OPERATION**

| DEGREE OF SUPERVISION EXERCISED                                                                                                                                      | SUBORDINATES' RESPONSIBILITY FOR RESULTS                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>GENERAL SUPERINTENDENCE</b>                                                                                                                                       |                                                                                                                                     |
| Discussion as to policy: no intervention as to means or methods—over principal subordinates and technical chiefs.                                                    | To obtain increasingly satisfactory results in line with policy without special instructions.                                       |
| <b>ADMINISTRATIVE SUPERINTENDENCE</b>                                                                                                                                |                                                                                                                                     |
| Instructions as to policy and occasional discussion of means and methods—over heads of Divisions and Departments and independent workers of equal rank.              | To obtain increasingly satisfactory results in line with policy without consultation as to method.                                  |
| <b>EXECUTIVE SUPERINTENDENCE</b>                                                                                                                                     |                                                                                                                                     |
| Frequent consultation, advice and guidance—over supervisory positions and trained and independent workers.                                                           | To devise means for accomplishing a stated object, to carry on work on own initiative and to accept responsibility for the results. |
| <b>GENERAL SUPERVISION</b>                                                                                                                                           |                                                                                                                                     |
| Supervisor available, but does not intervene in minor phases of the work—over employees thoroughly familiar with their duties and the methods of accomplishing them. | To maintain a satisfactory standard of accomplishment without constant checking.                                                    |
| <b>EXECUTIVE SUPERVISION</b>                                                                                                                                         |                                                                                                                                     |
| Frequent of results secured—over employees who have learned the routine of their work, but require instruction as to any deviation from it.                          | For energetic and accurate accomplishment of standard procedure.                                                                    |
| <b>OVERSIGHT</b>                                                                                                                                                     |                                                                                                                                     |
| Constant watch over manner and method of work in all details—over a learner or apprentice.                                                                           | For disciplined attention to instructions and continuous effort to give effect to them.                                             |

such as is customary in the Army. There, an officer's rank is in part determined by seniority and is usually rather an index of the appointments he *has held* successfully than of the importance of the appointment he *may be holding at the moment*. Indeed, the highest rank of all, that of field-marshal, is very rarely held by an officer in the field. It is rather granted *honoris causa*, a distinction lending dignity to an honourable retirement.

### *Types of Relationship*

The interlocking of the division of authority into various levels under the scalar principle, with differentiation of functions by one or more of the methods described, gives rise to various types of relationship between officials in any organisation. Four main types may be distinguished:

(A) Line relations exist between a superior and the subordinates immediately and directly responsible to him and *vice versa* in the scalar chain. They should be formal.

(B) Lateral relations are those between positions in various parts of an organisation where no direct authority is involved. Save where such relations are expressly arranged by the provision of units of organisation in committee form, they are usually informal.

(C) Subjectival or functional relations are those which arise when duties are divided on the subjectival basis, i.e. when an individual exercises authority on one particular subject by reason of special skill or knowledge. They can and should exist side by side with line relations. While they are frequently informal, it is highly desirable that they should be formalised.

(D) Staff relations are those between individuals, one or both of whom is acting as the representative of a superior, expressing that superior's authority and engaging his personal responsibility. In view of the delicate character of staff responsibilities, friction is inevitable unless they are formalised and explained carefully to all concerned. They have been applied very little by business up to the present. But embryonic "staff" relations can be found in positions such as "First Assistant to the President," "Assistant to the Managing Director" and—sometimes—"Private Secretary."

*Principles and Methods not Mutually Exclusive*

It is a common delusion that a successful organisation can be built up by applying one or other of the principles or methods enumerated, to the exclusion of the others. Writers on business talk of the "staff and line *form*" of organisation, of the "functional *form*" of organisation. Such views suggest a lack of observation of actual undertakings. In every complex undertaking most, if not all, of the methods of grouping activities and of the relationships mentioned occur at some point or other. The art of organisation consists in determining the correct method to apply at each point and to each aspect of an undertaking, and so to build up a structure in which the method or methods used at each point and the degree to which they are used result in the balance which is most effective for the purpose of the undertaking.

What is of importance is that the method which is being used should be identified and applied deliberately and consistently within the determined limits. *Ad hoc* adjustments to meet personal or other considerations, carried out without reference to the principles or the general pattern of method which is being employed, almost invariably sow the seeds of future trouble. "Tolerances," which are even more necessary in human than in mechanical engineering, should be calculated and controlled, not emotional reactions.

*Doctrine*

Obviously, while sound structure will pave the way towards perfect functional correlation, that is, complete co-ordination, it cannot in itself achieve it. Exact functional definition is essential to the creation of collective harmony. On the other hand, such harmony itself does not guarantee co-ordinated efficiency. By itself it may be purely passive, implying merely the absence of friction. Nor can authority by itself ensure it. Authority enters into process through the scalar chain—that is to say, it works perpendicularly. But functional correlation, especially where there is a high degree of specialisation, must be largely horizontal. It remains to consider the methods open to the leader to ensure that this lateral or horizontal correlation does in fact take place.

Marshal Foch once said that active obedience always presupposes understanding. "There can be no collective harmony in

the active sense in any organisation unless each and every one concerned knows what the purpose is.”<sup>1</sup> This definition of the objective is the primary meaning of doctrine. But in all forms of co-ordinated effort there is also a doctrine of procedure of some kind. It is essential that every member of the organisation should not only know its doctrine, but should feel it and absorb it. Provided the objective be desirable and legitimate, there can be built a unity of doctrine which translates itself into a unity of spirit, a moving force ensuring the maximum of continuous and co-ordinated efficiency.

### *Training*

One of the surest methods of securing this uniformity of doctrine is identity of training. Sir Ian Hamilton has given a dramatic example of the way such identity of training works in war:

“At a Staff College . . . we find . . . selections out of a great service in the first flower of their prime; eager, impressionable, retentive. Upon this plastic, fiery stuff the Commandant puts his stamp. If he is worth his salt, the whole of the Staff Officers passed into the Army during his tenure will have digested his doctrine. Suppose that, long afterwards, in some battle the Generalissimo’s plan goes wrong; the enemy are weak where they were expected to be strong; there is heavy firing from directions supposed to be clear; the telephones are dumb; the aeroplanes do not return; the fog of war descends. Now, a certain Staff College graduate is commanding a British Corps; a man of his year has the Corps on his right, whilst a man of a later batch, but taught by the same Commandant, is Chief of Staff on his left; *each of these three will know what the other two will do, and what they will expect him to do.*”<sup>2</sup>

In civil life generally too little attention has been paid to training as a factor in efficiency, and where attention has been given, it has tended to concentrate on the instruction of the rank and file in technical skills or of the subordinate supervisory group in the elements of leadership. This rather patronising attitude towards the subject has overlooked the importance of training for officials of all grades, not primarily in order that they may learn

<sup>1</sup> Moonoy and Reiley, *op. cit.*, p. 57.

<sup>2</sup> Sir Ian Hamilton, *The Soul and Body of an Army*, p. 253.

new tricks, but that, in studying methods in common, they may attain the similarity of outlook and of attack on problems which are essential to true co-operation.

### *Publication*

One writer<sup>a</sup> has listed as the most important mechanisms for securing co-ordination "organisation charts, organisation records, standard procedure instructions, orders and returns, records of performance, administrative reports and committees."<sup>3</sup>

It will be noted that the first three items on this list deal with methods of informing personnel on functional definition, and the fourth also involves some form of publication. This is also a matter in which general practice has hardly achieved the standard which the importance of the subject demands. It is not reasonable to anticipate that the members of a large organisation will regard co-ordination as of great importance, or indeed develop any marked respect for the wishes of those in authority, if the *form* in which those wishes and the consequent arrangements are expressed is not itself orderly, coherent, definite, timely and easy of reference. And yet, in a great number of undertakings of all kinds, written instructions are neither uniform, clearly expressed, self-consistent, readily amendable, logically arranged nor up-to-date. Either little or no attention is given to the question of publication of information or too much attention is given to it by too many people. There is no central control, and subordinate officers become enmeshed in a chaos of regulations which defy interpretation while providing a thousand avenues for circumlocution.

The requirements of even a large undertaking in this matter are, after all, not unduly complex. Intrinsically they are two:

(a) A periodic bulletin, daily, bi-weekly, weekly or less frequent, in which *all* information for employees is recorded in the first instance. Paragraphs should be in numerical order with subject headings.

(b) A standing manual or manuals in loose-leaf form and arranged by subjects in which the portions of the periodic bulletins which are of permanent value are codified.

It may be necessary, if the number of regulations is very large or difficulty is encountered in building up instructions and codes

<sup>a</sup> Dexter S. Kimball, *Principles of Industrial Organisation*, p. 103.

into their final form, to have a buffer between these two media in the form of extracts from the periodical bulletins. These should be in numerical order, but should include only those paragraphs which are of a semi-permanent character: they should be indexed alphabetically. These three types of publication are in principle the maximum required by any organisation. The issue of instructions should be centralised and firmly controlled from the beginning.

Records of performance and administrative reports are not strictly co-ordinating devices, though they can assist co-ordination by disseminating information as to the activity of other functions and the balance of work. Primarily they are instruments of control.

### *Committees*

Committees are a subject in themselves. A committee is a group of persons to whom certain functions have been assigned on condition that they discharge those functions conjointly and in a corporate capacity. A unit of organisation in this form is always an alternative to employing an individual to perform the same functions. Experience suggests that it is a form with distinct limitations. For instance, the President's Committee on Administrative Management, after an exhaustive investigation of the machinery of the United States Federal Government, came to the conclusion that:

"For purposes of management, boards and commissions have turned out to be failures. Their mechanism is inevitably slow, cumbersome, wasteful and ineffective and does not lend itself readily to co-operation with other agencies. . . . The conspicuously well-managed administrative units in the Government are almost without exception headed by single administrators."<sup>4</sup>

The common saying that "the best kind of committee is a committee of one" is an indication of the general recognition that there are many instances of the use of committees where an individual would be more satisfactory.

Committees have certain structural peculiarities. They are discontinuous: they cease to exist as a unit each time that the

<sup>4</sup> *Report of the President's Committee on Administrative Management*, p. 32.

committee rises. The chairman must either lead a committee or some other member will. The secretary is either nothing more than a keeper of the record or his close acquaintance with the committee's procedure will enable him to exercise a special influence on its proceedings. This is particularly the case where the secretary is a permanent official of the organisation in question and all or some of the other members of the committee are not. Yet both these officials of a committee, while thus enjoying a special authority, have no corresponding responsibility. They are no more accountable for the committee's actions than any other member.

Committees are also prone to a number of psychological weaknesses. Mr. E. C. Lindeman has listed fourteen of the most common, ranging from "tendency to indulge in irrelevant discussion," through "members try to impress superior" and "Chairman obtrudes opinions" to "tendency to jump to conclusions."<sup>5</sup>

For all these reasons, a committee as a unit in organisation suffers from certain inalienable disadvantages, the chief of which are:

- (a) It encourages irresponsibility among its members.
- (b) Being a corporation, it has, by definition, "neither a soul to be damned nor a body to be kicked." It therefore tends to be both less considerate and less scrupulous, and at the same time less decisive as an employer than a single individual.
- (c) Since both in preparation and in session it represents the collective salaries of members, it is a very expensive form of unit.

Certain forms of activity are definitely unsuitable for committee action. For reasons already given, a committee cannot lead at all. It is most unsuitable for organisation work. It can only execute within very narrow limits. In forecasting, in supervision and inspection, in initiating actions, in planning, in communication and in enforcing discipline, the area in which it can do better work than an individual is very restricted. On the other hand, it is ideal for jurisdiction. It is a useful form for examining the results of investigation and discussing policy (direction). It can issue instructions and examine and pass on figures—the formal elements in command and control. It can provide training for its members

<sup>5</sup> *v. Handbook of Business Administration*, pp. 1,684-6.

and assist in that unification of outlook which is the psychological basis of co-ordination.

### *Conditions of Successful Committee Work*

But even if the activities assigned to it are correctly chosen and care and intelligence are used in its composition, a unit in committee form will only work really successfully if certain basic conditions are fulfilled. Its members must understand that the purpose of a committee is not to win support for this or that individual opinion, but to develop a collective judgment which is something more than the sum of the individual views represented—a resultant having an entity of its own and developing out of the conjoint thinking of the committee.

Such conjoint thinking is only possible where the members collectively and severally have appreciated both the importance of disassociating self from opinion and have acquired skill in integration. Compromise is not enough. It means that both sides have given up something. And collective enthusiasm for a policy is impossible where those who have to carry it out start with a sense of loss. Integration can only be developed out of ability to recognise the real needs which lie behind apparently conflicting statements and inventiveness in finding, not merely a formula, but a solution which in fact satisfies all of those realities.

It is hardly necessary to add that the self-control of egotism, the experience, the patience, and the moral and intellectual insight necessary are not often found in combination in all the members of a committee.

The popularity of the committee form appears to be due to a number of causes, among which the principal are:

(i) Lack of precision in defining major objectives. A committee is brought into being, not to do something, but to cover up the fact that those responsible have not decided what to do.

(ii) Failure to restrain internal objectives of parts of organisations. A committee is brought into being, not to further the general objective, but because its members represent "interests" to which they are, quite improperly, giving priority.

(iii) Individuals seek to escape responsibility.

(iv) Fear of assigning the proper executive authority to individuals, of what has been described as the "oft-recurring insolence of office."

(v) Lack of experience of alternative methods of co-ordination.<sup>6</sup>

On the fourth point the President's Committee on Administrative Management expressed a classic opinion:

"A weak administration can neither advance nor retreat successfully—it can merely muddle. Those who waver at the sight of needed power are false friends of modern democracy. Strong executive leadership is essential to democratic government to-day. Our choice is not between power and no power, but between responsible but capable popular government and irresponsible autocracy. The forward march of American democracy at this point of our history depends more upon effective management than upon any other single factor."<sup>7</sup>

#### *Need for Improved Methods of Co-ordination*

If this view is accepted and considered in conjunction with the fifth point, it seems incontestable that the most urgent need in modern democracy, whether in government or in business, is a rapid evolution of new machinery and methods designed to improve co-ordination. The great and necessary increase in specialisation which has taken place in the last half century has been met in part by what has been described as the subjectival method of organisation. But this has itself thrown upon leadership a vastly increased task in securing unity of purpose, thought and action.

Nor can there be much doubt as to the lines which that evolution must follow if it is to be successful. In the first place, there must be an increased recognition of the significance and importance of operating authority, of the function of the chief executive. In the United States this is already accepted by those who have given thought to the subject:

"The American executive as an institution stands across the path of those who mistakenly assert that democracy must fail because it can neither decide promptly nor act vigorously."<sup>8</sup>

<sup>6</sup> For a more detailed study of committees, v. L. Urwick, "Committees in Organisation," *British Management Review*.

<sup>7</sup> *Report of the President's Committee on Administrative Management*, p. 58.

<sup>8</sup> *Ibid.*, p. 2.

*The "Staff" Principle*

But this by itself is not enough. The leader, if he is to lead, must not be tied to his desk by excess of detail. Therefore, in the second place, there is likely to be an increased utilisation of that device which has already been forced upon the fighting forces of all the world, as an answer to the self-same problem—the extension of the leader's personality by the use of subordinates in a "staff" relationship.

"As long as armies were small, and movements, encampments and fighting formations were laid down by hard and fast regulations, the want of trained General Staff Officers was less felt. The plan determined by the General in command usually contained the details of execution. . . . The enormous numerical strength of modern armies and the way they must be organised to meet the constantly changing requirements of war render necessary great differences in carrying out the details of military operations, even under apparently similar circumstances of time and place. Consequently, the higher leaders and Commanders require a regular staff of specially selected and trained officers."<sup>9</sup>

And:

"It must be the main object of staff organisation to ensure a smooth and efficient co-ordination of effort between all parts of the force."<sup>10</sup>

Mooney and Reiley use the term "staff service" in a somewhat wider sense to include the advisory aspects of specialised subjectival activities, but they record the undeveloped condition of the staff relation in industry:

"The advice of a military staff can hardly be classed either as voluntary or solicited advice. Theirs is not the duty to speak simply when it pleases them or when they are asked. In the military line and staff it is not the individual and occasional issue that is up for decision. The relationship is constant. . . .

<sup>9</sup> Bronsart von Schellendorf, *The Duties of the General Staff*. English translation of the Fourth Edition, p. 4. Quoted by the late Lord Haldane in a memorandum announcing the formation of a General Staff for the British Army, *The Times*, September 13th, 1906:

<sup>10</sup> British *Field Service Regulations*, Vol. I. "Organisation and Administration."

"The function of the staff officer is that of transmission and interpretation. To this he adds the duty of supervision, to see that plans are carried out. . . .

"There is another vital respect in which military staff organisation is in advance of anything yet developed in the average industrial establishment. This is in the service of *transmission* of line decisions to everyone concerned."<sup>11</sup>

And finally:

"Although co-ordinated staff service . . . is growing in business institutions, the office of Chief of Staff, or any office under any name, existing solely for the purpose of co-ordinating these functions, is unknown in industrial organisation."<sup>12</sup>

Specialisation spells more co-ordination. Co-ordination is an activity that cannot be separated from the functions and responsibility of the leader. It is a continuous process, a constant responsibility. It cannot be fulfilled wholly by units in committee form, which are by definition intermittent in operation. It is logical to anticipate an increased specialisation of the leader's duty of co-ordination through subordinates associated with him in a "staff" relationship.

The aim of co-ordination is a psychological unity, an integration, not only of arrangements, but of will and enthusiasm. No apparatus, no mechanisms or structural devices can ensure the things of the spirit. The way in which the leader approaches questions, seeks to interpret his mind to those he leads, must have a profound bearing on this issue. To ensure this psychological unity is part of the dynamic aspect of administration, dealt with under "Command" and "Control."

<sup>11</sup> *Onward Industry*, pp. 326, 327.

<sup>12</sup> *Ibid.*, p. 329

## CHAPTER VI

### COMMAND

#### *The General Interest*

THE principles which should underlie the exercise of the fifth aspect of administration—command—are outlined in Figure IV. The purpose of command as such, the reason why someone must be in command, must lead, is given in Fayol's sixth Principle and twelfth Administrative Duty: "see that individual interests do not interfere with the general interest."

It has already been emphasised that parts of an organisation may develop their own internal objectives separate from and possibly inconsistent with the general purpose and policy of the undertaking.<sup>1</sup> Such objectives include the interest of individuals working in such parts of an organisation in the continuance of jobs, the maintenance of status and so on. The same consideration underlay the statement in Chapter III that "making a profit" cannot be the objective of a business *per se*.

The possibility of making a profit is an incentive, a motive to those who invest their money in a business and, under our present legal system, own it. Exactly in the same way the possibility of earning salaries or wages is an incentive, a motive for those who are employed in the business.

Profit may be regarded as a good motive, a useful working incentive. In the words of one progressive business leader:

"The profit motive, whatever may be said against it, has proved dependable, steady, always on the job. . . . Such a dependable motive power as this is surely worth considering. If it can be attached to a machine well designed to serve the common welfare, the common welfare would seem to be assured."<sup>2</sup>

Or it may be regarded as a bad motive, a contaminating incentive, as in Professor Tawney's phrase, "*The Sickness of an Acquisitive Society*." That is a political issue. As such it has no place in any

<sup>1</sup> v. Chapter III, "The Principle of the Objective," and Chapter IV, "Applying the Principle of the Objective."

<sup>2</sup> E. A. Filene, *Successful Living in This Machine Age*.

FIGURE IV

## THE PRINCIPLES OF COMMAND AND CONTROL

The object of command and control is to secure the general interest and to see that it is not interfered with by individual interests. ("See that individual interests do not interfere with the general interest"—A.D.12 and P.6.)

| 1. PRINCIPLE                                                                                                                      | 2. PROCESS                                                                                                                                                                                            | 3. EFFECT                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>1. CENTRALISATION</b><br><br>Its main principle is therefore centralisation ("Centralisation"—P.8).                            | <b>APPROPRIATE STAFFING</b><br><br>Centralisation enters into process through appropriate staffing ("See that each department has a competent and energetic head"—A.D.6).                             | <b>ESPRIT DE CORPS</b><br><br>And takes effect in esprit de corps. ("Esprit de corps"—P.14).                    |
| APPROPRIATE STAFFING depends on                                                                                                   |                                                                                                                                                                                                       |                                                                                                                 |
| <b>2. SELECTION AND PLACEMENT</b><br><br>("Make careful selection of staff—each employee where he can be of most service"—A.D.6.) | <b>REWARDS AND SANCTIONS</b><br><br>Enters into process through rewards and sanctions ("Reward men fairly and judiciously for their services"—A.D.9 and P.7; "Impose penalties for mistakes"—A.D.10). | <b>INITIATIVE</b><br><br>And takes effect in initiative ("Encourage the desire for initiative"—A.D.8 and P.13). |
| ESPRIT DE CORPS finds its principle in                                                                                            |                                                                                                                                                                                                       |                                                                                                                 |
| <b>3. EQUITY</b><br><br>("Equity"—P.11.)                                                                                          | <b>DISCIPLINE</b><br><br>Enters into process through discipline ("Discipline"—A.D.11 and P.3) and ("avoidance of red tape"—A.D.16).                                                                   | <b>STABILITY</b><br><br>And takes effect in stability of staff ("Stability of Staff"—P.12).                     |

### NOTES

(a) As in Figs. I and II, quotations in brackets refer to Henri Fayol's *General and Industrial Administration* and his lists of "Administrative Duties" (A.D.) and of "Principles" (P.).

(b) Fayol's lists of Administrative Duties and Principles were quite empirical. He wrote: "There is no limit to the number of principles of administration. Every administrative rule or device . . . takes its place among the principles, for so long as experience proves it to be worthy of this important position." In fact, his six Aspects of Administration, sixteen Administrative Duties and fourteen Principles build up, as the three figures show, into a complete logical scheme. All are included: A.D.10 is used twice; A.Ds. 1 and 8 are divided into their two aspects. As far as organisation and co-ordination are concerned, Principles and Administrative Duties are found exactly corresponding with Mooney and Reiley's more formal scheme, except for the judicial function. At the time when they wrote their book, Fayol's work was unknown to Mooney and Reiley.

science of Administration. All that concerns students of Administration is that there should be an incentive and that it should work.

*Confusion between Objective and Motive*

But to confuse the profit *motive* with the *purpose* of business is as mistaken as to confuse the wages motive with the purpose of business. Business undertakings do not exist in order to pay wages or to employ persons. That kind of employment is relief work. They exist in order to produce or to distribute goods or services. To quote the same business leader:

"The purpose of business is to get wealth to people—to produce and to distribute to all humanity the things which humanity with its new-found power can now be organised to make only if it can be organised to buy and use them."<sup>3</sup>

And it is manifestly the duty of those to whom is entrusted the administration of a great modern business enterprise to strike a balance between the interests, the personal motives, of all concerned in the fortunes of the undertaking. In the first place, it is their duty to preserve the capital of their shareholders. But to do so effectively often involves telling their shareholders that they must go without profits for a long period or even consent to large reductions in nominal capital value as the best means of preserving their property intact. In other words, they must preserve the possibility of the business continuing to carry out its objective—namely, to manufacture and/or trade in a particular range of products. Unless and until the possibility of carrying out that primary objective is assured, the question of profit does not and cannot arise.

Equally, they cannot pay wages below the standard of their trade without risking the incidence of labour disputes, which may put their undertaking out of action altogether. Similar considerations apply to dealings with suppliers and customers. If profit is considered the prime objective of a business, many opportunities may offer themselves to drive hard bargains when the market is particularly favourable to buyers or to sellers. But the wise administrator will always weigh up such temporary advantages against the possibility that he may by using them do harm to the

<sup>3</sup> E. A. Filene, *Successful Living in This Machine Age*.

long-period goodwill of the undertaking, and hence to its possibility of continuing to trade in the future.

*Command must Represent a Common Objective*

All these examples are sufficiently obvious. They are merely records of normal business practice. But they make nonsense of the contention that profit is the primary or the sole objective of business. The objection to this over-simplified statement is that it does not fit the facts. It is consequently misleading. It hampers effective administration in two ways. As pointed out in Chapter III, it prevents the administrator from planning properly because he does not define with sufficient detail or precision what he is aiming at. In the second place, it handicaps clear appreciation or balanced application of the fundamental purpose of command, which is to protect the general interest. It is impossible for the man or men in control of any social group to secure that, internally, individual interests do not interfere with the general interest—that ambition, greed, the struggles of individuals for salary and status, the lust of personal power, are subordinated to the general interest of the undertaking, if, externally, in relation to ownership, opportunity for the uncontrolled exercise of these motives is regarded as the objective of the undertaking.

Similar considerations apply to other types of social groups where the profit motive plays no direct part. If a small circle at the head of any undertaking or profession attempts so to arrange matters as to secure privileges or advantages for members of the circle or for a particular class or grade within the profession—privileges which bear no obvious relation to the general interest of the undertaking or do not appear to further the main objective for which it was established—they will weaken their power of command, to the degree to which their subordinates are aware of what is occurring. Their leadership will be bankrupt, because it ignores the underlying principle of "the general interest," the final justification of command over others.

To say this is not to condemn individual impulses for material gain, for power, for prestige. They are facts. Properly used they can be facts very helpful to administration. But to confuse such motives with the objectives of any common enterprise is a dangerous fallacy. It makes any coherent theory of administration impossible. And such individual impulses are liable to become

inflamed, and, as in the physical body, to threaten the whole life of the organism. As Mr. H. G. Wells once observed:

"It is a universal weakness of mankind that what we are given to administer, we presently imagine that we own."

### *Centralisation*

Since to secure the general interest is the basis of Command, the reason for its existence as an aspect of Administration, it finds its underlying principle in the one word quoted by Fayol as his eighth principle—namely, "centralisation." To say this is not to imply that the whole sum of the commanding in any undertaking should be gathered together in the centre. On the contrary, this would do violence to the principle of delegation already emphasised.<sup>4</sup> In any large undertaking many subordinate officers must and should exercise functions of command. But just as "the supreme co-ordinating authority must rest somewhere and in some form in every organisation," and Authority therefore is the basic principle of organisation and enters into process through the Scalar chain which finds its principle in Leadership, so when Planning enters into process through Command, it finds a corresponding principle in centralisation.

So regarded, Centralisation is merely the executive aspect of the principles of Authority and Leadership which have already been discussed. Obviously subordinate, delegated command connotes control of a part only of an undertaking. Therefore by definition it is liable to sectional interest. And indeed the commander of a battalion or the manager of a department who is not proud of the unit he controls, and liable to urge its interests to the point of being a little myopic about general considerations which may conflict with them, is not a very useful or enthusiastic commander. It is therefore essential that at some point in the executive structure of the undertaking the general interest should be represented authoritatively, so that it may balance and reconcile sectional enthusiasms. That is the meaning of the term "centralisation" as used here.

Centralisation enters into process with Appropriate Staffing, Fayol's sixth Administrative Duty—"see that each Department has a competent and energetic head." Just as Leadership entered into process with Delegation, so Command can only enter into

<sup>4</sup> v. Chapter IV, "Delegation."

process when there is someone to whom to delegate. Finally, just as Leadership through Delegation resulted in Functional Definition, so Command through Appropriate Staffing takes effect in Fayol's fourteenth principle—"*Esprit de corps*." The effect in the first instance is formal, static—a suitable distribution of duties and responsibilities; the effect in the second instance is psychological, dynamic—a high morale among those employed by the undertaking. Organisation—the design on the drawing board—takes life and fire, becomes an organism, only through personality, a commander who can lead helped by subordinates whose spirit is fused with his.

### *Selection and Placement*

To provide such subordinates must therefore be a primary duty of Command. Appropriate Staffing accordingly finds its underlying principle in Selection and Placement, expressed in Fayol's Sixth Administrative Duty, "make careful selection of staff—each employee where he can be of most service."

In discussing Forecasting, emphasis was placed on the difference between shrewdness and real study of a situation, and the importance to the administrator of helping himself to eliminate personal prejudices and limitations in forming a judgment as to the future.<sup>5</sup> In the selection of staff this self-elimination is of even greater moment. There is no field of an administrator's activity which can be of greater influence on the future of the undertaking. Andrew Carnegie once said that fate might take from him every item in his colossal fortune but one—his assots, his credit, everything, and he would guarantee to be a millionaire again within five years. That one was his staff. There is equally no field in which the administrator is more prone to fall a victim to personal idiosyncrasies or to develop that conviction of infallibility which is the surest sign of faulty self-analysis.

In view of the immense significance to an undertaking of the men and women who are selected to form a part of its working group and of placing these men and women in tasks appropriate to their temperaments and capacities, the light-hearted and frequently irrelevant processes through which these vital tasks are performed often defy comment. An administrator or a group will spend hours, days and even weeks, weighing the alternative

<sup>5</sup> v. Chapter II, "Study v. Shrewdness."

merits of a couple of machines costing perhaps £5,000 in all, will pore over specifications, visit exhibitions, consult other users, make tests, exhaust every available means of measurement and every conceivable source of information. The same group or individual will choose a manager at a four-figure salary representing twice the investment, on the basis of a loosely worded advertisement (Specifications in the "Situations Vacant" columns often read as though the situation was in the moon), a rough check of written applications which are usually meant to make the most of the truth, and half an hour's interview with each of three selected candidates.

The basis of this curious contrast is of course twofold. On the one hand there is the delusion, very widespread among successful administrators, that they are good judges of men. On the other there is the sensation that human nature is impalpable stuff, there are no recognised methods of measurement and, anyway, a mistake can be easily corrected by dismissing the employee.

### *The Importance of Care and Detachment*

The idea that the successful executive is a good judge of men has been exploded experimentally on more than one occasion by testing ten or more such executives on the same batch of candidates for the same position and comparing the results. In one case where the candidates were actually carrying out the job for which they were being interviewed in the experiment, the judgments of the interviewers in ranking the candidates did not correlate even 50 per cent. with each other or with the actual performance of the candidates as measured on the job.

Self-assurance by an administrator in this matter is an almost certain index that his turnover in managerial labour is high and that his organisation has a large proportion of square pegs in round holes. It is almost twenty years ago since Dr. Cyril Burt, probably the greatest living psychologist in this country, made a plea in public against expecting too much even of the mental expert, an appeal for greater care in dealing with human beings.

"The mental expert," he said, "is expected to cast his eye round the classroom or the prison, and to make a darting, snapshot diagnosis on the spot. Our school doctors are given about ten minutes to decide whether a boy is deficient or not.

Our magistrates take fifteen or twenty to decide what is best for a first offender. But the laboratory tester thinks himself a miracle of swiftness if he has measured a child's intelligence in less than an hour; and the psycho-analyst asks his startled patient for six months of separate weekly sittings to unravel a single complex. A longer period still was required by Shakespeare: 'It is not a year or two shows us a man.' And Dr. Johnson thought the intimacy of a lifetime scarcely enough: 'God, Himself, sir, does not propose to judge man until the end of his days.' . . . We can deal with human beings fairly and efficiently only by making an intensive, individual study of each isolated mind; there is no other way. Human personality, with all its infinite variety, is the most important single factor in all our social life; and the expenditure of time, however lavish, will never be lost."<sup>6</sup>

It is a plea which every administrator would do well to remember.

It is true that the task of selection is difficult and impalpable. There are no exact methods of measurement. Those there are, are still incomplete and undeveloped. But that is no reason in the world why they should not be used. Refusal, for instance, to make use of psychological tests because they cannot answer all the questions or tell the whole story about a man, is not reasonable. They can tell something of standards of intelligence and special aptitudes. They are far more detached and infinitely fairer than conventional competitive examinations. The administrator who approaches this problem with proper modesty will welcome any assistance in improving his standard of performance, particularly any assistance in escaping from the personal element in his own judgment.

Because, until psychological tests can tell the whole story, he cannot escape from the responsibility. Ultimately he must rely on judgment, and his judgment is most likely to be accurate if he appreciates how prone it is to bias. Even here there are techniques which will assist him in ironing out the personal factor. The use of definitions of personal qualities, independent interviews by two or three people based on standard rating scales, followed by careful comparison of the different markings for individual factors, and

<sup>6</sup> Cyril Burt, "Mental Differences between Individuals," British Association for the Advancement of Science, Liverpool, 1923.

so on. These things take time. But as Dr. Burt has suggested, such time is never wasted.

### *Emoluments*

Selection and Placement having given an appropriate staff, it enters into process with Rewards and Sanctions. Fayol says in his ninth Administrative Duty and his seventh Principle, "Reward men fairly and judiciously for their services" and in his tenth Administrative Duty, "Impose penalties for mistakes."

It is inherent in every contract of employment that there shall be some reward for the services rendered—at least sufficient to enable the employee to live, though the employee sometimes differs from the administrator as to what is sufficient. Beyond this minimum the issue of what is fair is not always an easy problem for the administrator. Men and women in organisations often seem to entertain incompatible views as to the principles which should determine levels of remuneration. They will tend to insist that great weight should be given to security in matters of advancement, so that the certainty of some increase in remuneration is spread as widely as possible over the greater proportion of the staff. On the other hand they will insist at the same time that where there is a discrepancy between the remuneration paid for two positions involving approximately equal responsibilities, this discrepancy should be adjusted on the basis of equal pay for equal work. These two principles are, of course, mutually inconsistent.

The administrator, from his standpoint, has always to bear in mind the possibility, at all events in a competitive economy, that he will lose valuable employees to other concerns if he does not maintain his general levels of remuneration at approximately the level prevailing in the market for similar qualifications and responsibilities. On the other hand, he has to safeguard himself against the possibility of being blackmailed by one or two "key" employees into paying salaries which will upset the general balance of his scheme of remuneration. In practice, levels of salary in the managerial grades in business are very much less sensitive to general market tendencies than might be anticipated. Employees tend to "stay put" and to accept the convention established by their particular concern, unless there are other strong factors tending to make them restless. Consequently, there are fairly wide differences between the standards paid by different

undertakings for positions involving similar qualities and responsibilities.

One tendency against which the administrator has to guard himself is that pressure for rewards for service and seniority will lead gradually to the establishment of levels of remuneration for certain positions which are well above the real market value of the work involved and cumulatively are more than the organisation can really afford. The best cure for such a situation is the installation of a comprehensive scheme of salary grading which assigns maximum and minimum salaries for each position, leaving sufficient elasticity within these limits to reward the legitimate claims of long service and good conduct. It may not be possible or desirable to reduce old employees to the maximum thus determined immediately. But the administrator has a clear indication of where he is paying not for work but for morale, and how much. He also has a constant reminder when such positions fall vacant that they should be filled at the standard level of remuneration. There should be no entail in past mistakes.

### *Promotion*

The factor, apart from salary, which is most likely to upset relationships within any staff is promotion. At all events for younger executives, opportunity is often a more stimulating reward than salary. And no suspicion will upset the morale of a large staff so quickly or so thoroughly as the belief that selection of individuals for wider responsibilities is not made carefully and impartially in the interests of the organisation as a whole, but is biased by favouritism or nepotism. Since those who fail to obtain an opportunity for which they have hoped are usually disappointed and very fertile in discovering any explanation other than the obvious one that there was a more suitable candidate, there is also no suspicion which is more readily excited.

There is a story from the Middle Ages of a certain clerk who besought a King of England to further his candidature for a canonry. The Chapter met and elected another. The clerk reproached the King for not moving in the matter. The King replied that he had taken no action because, in his experience, the Chapter, if left to itself, always chose the worst candidate. "But lo! they have found a worse than thou. Have courage, brother. It will not always be thus."

It is doubtful if administrators as a whole, particularly in business, have paid sufficient attention to the wise use of this vital form of reward. In particular in filling positions from candidates from outside an organisation the greatest care and discrimination are necessary. Every staff benefits from a periodic influx of new blood. It is a corrective to the deteriorating practice of "waiting for dead men's shoes." But much of the benefit is wasted if the matter cannot be arranged without exciting resentment among the existing staff.

Indeed, the whole question of rewards calls for very much more scientific investigation than has yet been given to it. Apart from the direct financial incentive, there are all kinds of motives in human nature which can be used to stimulate a working group and to encourage them to give of their best, always provided that the appeal to those motives is correctly conceived and applied. The force of such an appeal varies widely from individual to individual. One man will respond to a word of praise in the right place with a greatly enhanced performance, another with only a greatly enhanced opinion of himself which makes him a nuisance both to his colleagues and to his superiors. The insight to use such motives in the right degree at the right time to the right man, and equally to refrain from using them wrongly, is of the essence of the personal aspect of command.

### *Sanctions*

The question of sanctions is of course a difficult one. It is useless to have a complex series of regulations and then allow individuals to break them with impunity. On the other hand, the atmosphere of modern organisation in democratic countries is clearly unfavourable to formal punishment. Bernard Shaw once remarked that "deterrence is a function of certainty not of severity." The almost innocuous penalty which nevertheless involves the victim in being known to have been caught and punished, however mildly, is probably far more effective as a deterrent than more drastic measures. Few men like being laughed at and the majority will take trouble to avoid it.

It is recorded of Frederick Winslow Taylor that he insisted on the most precise adherence to the detailed instructions which formed an integral feature of the introduction of Scientific Management. Any person in the undertaking who failed to carry

out his orders in the smallest respect promptly received a yellow paper calling attention to his lapse and recording a small fine, about 1s., from his wages. This was sometimes resented. But on the whole the fines were so small that the men laughed and teased the victims. They nicknamed the yellow papers "canaries." But Taylor, though strict, was intensely human. He was well aware that the best executive sometimes nods and that to observe detailed instructions with absolute precision all the time is given to no man. Sometimes he failed to observe the proper procedure himself. Whenever he did so he reported himself to himself and duly issued a yellow paper to the wages office inflicting a fine against his own salary. When the men heard about this, there was what is called in parliamentary reports "prolonged laughter." "You heard what the boss has done now, buddy? He's sent *himself* a 'canary.' Some guy!"

That is an example of the spirit and the method in which and through which sanctions can be used effectively and inoffensively.

### *Initiative*

Judicious selection and placement supported by a system of rewards and sanctions acceptable to the personnel concerned result in Initiative. Fayol's eighth Administrative Duty and thirteenth Principle were "encourage the desire for initiative." In the initiative of all working within an enterprise directed freely and energetically towards its objectives, the highest quality of administration finds its most significant reward. It is fundamental to organisations composed of human beings, and the point which distinguishes them from all mechanical structures, that there is no motive power other than the will and determination of each individual participating in the undertaking.

The degree to which he can elicit the constructive qualities in the personnel of all grades and stimulate them to a spontaneous and ordered and co-operative effort to carry out both the immediate and wider purposes of the undertaking is the test of the administrator. The man who can impose *his* will on others may succeed up to a point by dint of forcefulness and industry. But the motive power of the enterprise will be limited to the drive he can impart: it will always be a one-man-power organisation. The man who can focus and thereby magnify the wills of all associated with

him is a leader. He interprets the purposes of a great undertaking in terms which reach the understanding and inspire the enthusiasm of all ranks, so that his will and theirs are one. He becomes the fulcrum which gives leverage to the collective will. He commands a power out of all proportion greater than the individualist leader. In human terms, he will feel pulsing under his fingers:

*"The strength of twice three thousand horse  
That seeks a single goal."*

That is why the greatest crime the administrator can commit is to be too authoritative, too impatient of criticism and discussion, too quick to resent as disloyalty frank difference of opinion as to policy. Disloyalty arises when decisions have been taken, in lack of energy in implementing them, never in the processes through which they are formulated. To treat opposition as something to be crushed or swept aside is to start the insidious process by which candid officials are turned into "Yes-men," creatures who first enquire what will be "liked" by their superiors before formulating their own views, who have lost the taste for honesty when thinking about the affairs of the organisation. Once that process is started it will corrupt a whole undertaking like a leprosy. The direction will be robbed of the greatest contribution the personnel can make to the undertaking, unbiased and fearless statement of the best thought of which they are capable. Enthusiasm will be stifled, ability frustrated and energy turned inwards to concentrate on self-seeking. The administrator who gives way to the temptation to use his authority to suppress rather than to develop the views of his subordinates is committing the sin against the Holy Ghost.

### *"Morale"*

Appropriate staffing takes effect in *esprit de corps*, or "morale." It is brittle, sensitive stuff—the spirit of any great undertaking. When it is good it is unmistakable: when it is bad it is a choking fog, which undermines the courage and stifles the effort of even the best men and women among the personnel. And yet it is almost impossible to define precisely the elements which go to make or to mar this "atmosphere."

At the beginning of the last War the small British expeditionary force of five divisions was overwhelmed by the weight of three or

more German army corps forming the right flank of von Kluck's drive on Paris. At Mons and at Le Cateau they fought back. They were conscious that they were the best-trained and best-found army which had ever left these shores. But their initial experience of real war was ten days to a fortnight of unending retreat.

One battalion in that army, which had suffered but lightly in the early battles—its casualties had been about 10 per cent.—eventually reached an outpost line to the east of Paris. There it halted late one afternoon and rested, to everyone's amazement, till after midday the following day. The platoons in reserve on the line of picquets were able to do something for sore feet and empty bellies. But when the battalion fell in again on the road, the march was still south. The men toiled along, humping their packs, wondering and disheartened and silent.

It was in the middle of a normal hourly halt that the order was passed down, "Officers to the *rear* of the battalion." The tough little Colonel, a regular with twenty-five years' service, was waiting there with a telegram. It told briefly of successes by the French Army away to the east. Then, much more significant, Joffre's decision to pass to the attack all along the line. Officers returned to their companies. The whistles blew. The battalion fell in, still facing south. Then there sounded from the back the Colonel's voice, audible the full length of the column, "Battalion, about turn. Quick march." Within thirty seconds, chins were up, the men were marching with a swing and the whole battalion was singing. The miracle of the Marne had begun.

Morale of that resilient quality is something deeper than individual leadership, compounded of tradition, good management in the past, knowledge that the purpose of the undertaking is one to which all are ready to give their lives if necessary. One thing alone can destroy it permanently—injustice, if it is allowed to endure too long. Men and women may grouse; if they are British they will grouse. It is an inalienable hobby. But they will only become angry and disheartened in the face of a continued sense of unfair treatment as between man and man. A famous headmaster once heard two small boys discussing him. One of them had recently incurred his displeasure. The other said with some venom, "I think he's a *beast*!" "Yes," replied the first ruefully, "but, he's a just beast." The headmaster crept away, satisfied that his rule was at least endurable.

*Equity*

That is why *esprit de corps* finds its underlying principle in Fayol's eleventh Principle—"Equity."

Equity means something more than justice in the legal sense. It connotes not only a strict interpretation of the letter of the regulations, but still more a sensitive understanding of their spirit, that mixture of inspired common sense and human wisdom which can always break all the rules to keep the golden rule. That carries the corollary that the man in a position to break the rules will never break them for his own advantage. Around all true commanders there hangs a faint aroma of eccentricity, a hint of the unexpected. "You heard what the boss has done now, buddy? He's sent *himself* a 'canary.' Some guy!" No man is altogether a leader, till he is also something of a legend.

Which is another way of saying what Shakespeare has said much better,

"men seem likest gods,  
When mercy seasons justice."

Observe that "seasons"—the hall-mark of genius. Not "sweetens." Mercy is never sugary. It is salt. There is laughter in it for the folly as well as compassion based on the knowledge that all men are not infrequently fools. Fanaticism makes martyrs. Untempered justice makes victims. Equity makes men smile, recognising their own humanity. That is why it is the key to sanity, which is the moral equivalent of sanitation, in every human institution—the foundation stone of morale.

There is one subsidiary principle of a more severely practical kind which may be considered in connection with equity. Attention was called in an earlier chapter to the absence of any separate judicial function in public administration and in industry.<sup>7</sup> This carries the corollary that the individual subordinate is deprived of the protection normally afforded by the rigidity of judicial procedure. There are no "rules of evidence." This throws upon the administrator, if he wishes to maintain a reputation for justice, a special responsibility to secure that any individual has full opportunity to present his side of the case, that there are no "prejudicial" statements, no hint of "secret reports." The principle of evidence may be stated as follows:

<sup>7</sup> v. Chapter IV, "Failure to Isolate the Judicial Function."

"No statement concerning any individual in an undertaking which implies criticism should be accepted by any person in authority without full opportunity to deal with the matter being afforded the individual concerned. The usual rules of evidence accepted for legal purposes should be applied to test the validity of any statement. No adverse comment should become a matter of record until a copy has been handed to the individual concerned and any reply he may wish to make has been considered."

This may sound too Simon-pure. But it is the normal practice in the Army and other fighting services.

### *Discipline*

Equity enters into process through "Discipline"—Fayol's third Principle and eleventh Administrative Duty. The best definition of discipline is the late Lord Tweedsmuir's "organised self-control." No group of men or women can live tolerably together, no group can pursue any common objective, without discipline. The nature of that discipline depends on the nature of the task. That is not always sufficiently realised.

There was the discipline of the *Light Brigade*—

*"Theirs not to reason why,  
Theirs but to do or die."*

Their particular task happened to be to "ride into the valley of death, into the mouth of Hell." The kind of discipline required to train the nerves of normally apprehensive men for that ordeal is manifestly unnecessary and undesirable for less exacting purposes. One doesn't use a steam-hammer to crack nuts.

If a group of human beings have to live together, there must be some discipline or life becomes too complicated. Since every person in the group wishes to live his or her own life as much as possible, it is the minimum amount of regulation necessary to make the common portion of that life practical and tolerable. Take some simple examples. Unpunctuality at common meals makes work for those who have to prepare them. However much X. or Y. may prefer to breakfast alone, they must sit down to table within certain limited times or the organisation of communal

feeding becomes impossible. On the other hand, the fact that Z. is one of those people who are bright and breezy in the morning imposes no obligation on X. and Y. to be bright and breezy too. They may possess the kind of temperament that is broody at breakfast. And since to refrain from talking in no way prevents Z. from getting on with his breakfast—in fact it facilitates the process—there is nothing impracticable in a common-sense rule that members of the group who wish to retire behind their morning papers should not be interrupted.

Whether Smith washes or not has nothing whatever to do with Jones, until his self-denial becomes palpably offensive. The fact that the consequences are visible does nothing to make Jones' life intolerable. It merely offends his idea of what Smith should do, which is really no business of his. If he doesn't like Smith's appearance, he needn't look at him. On the other hand, if Smith's habits impinge on his olfactory sense, he cannot escape. No community can exist for long without such a degree of common rule as expresses the general feeling of the majority as to the conditions which all must observe.

It is the same with common objectives. Thirty or three hundred people cannot travel to the same destination in the same vehicle by "moving independently." One has to "catch" buses or trains. That is, one has to submit to the discipline of a regular schedule. The facilities are there. But they can only remain on condition that those who want to use them accept that discipline. In the same way, with modern facilities for transportation, the beauty of the countryside will only remain to the degree to which the community accept discipline about "litter," and are prepared to enforce that discipline on the insensitive.

One of the reasons, apart from "the mouth of Hell", why military discipline is so precise, is that soldiers normally live in very large communities exceptionally close to each other and that they have in the course of military operations to be transported, housed and fed, in large numbers and with extreme rapidity. It is impossible to imagine putting a thousand bombers over Cologne in ninety minutes without an extremely precise discipline in adhering to times of take-off, routes and so on, and, added to it, an admirable self-discipline among the pilots waiting their turn under fire for the bombing run.

That is the essence of discipline as far as it is necessary in civil life—enough regulation to enable people to do a collective job

precisely, enough self-control to ensure that they don't get in each other's way.

*Modern Industrial Discipline should be Precise and Impersonal*

The chief characteristics of modern industrial discipline are two. Modern industry is founded on science. Scientific procedures demand extreme precision if they are to be accurate and economical. Men as a whole are careless and inclined not "to bother." As was pointed out many years ago, James Wyatt, of Birmingham, developed a spinning machine many years before Arkwright. But he was an inventor, no manager. The real difficulty lay "in training human beings to renounce their desultory habits of work, and to identify themselves with the unvarying regularity of the complex automaton. To devise and administer a successful code of factory discipline, suited to the necessities of factory diligence, was the Herculean enterprise, the noble achievement of Arkwright."<sup>8</sup>

This necessary discipline is essentially impersonal. It is nothing to do with the will of manager or foreman. Its necessity is inherent in the work, in the nature of the tools and materials and processes employed. Like the bombers over Cologne, precision is inescapable if the job is to be done and accidents kept down. In fact, no one is giving "orders." It is someone's function to work out plans. The plans are the orders. The necessity for discipline of this kind is self-evident to the great majority. They resent it if the plans are badly drawn, inefficient, but not the fact that there must be plans. That is "the law of the situation," not the *ukase* of someone set in authority. And no one minds conforming to a real situation, once they understand that that is what they are doing. They appreciate that without such discipline it is impossible for a large group to follow a common objective.

There remain two elements. Ordinary carelessness makes it difficult for any individual to follow a detailed procedure exactly all the time, unless he or she is aware that it will be more inconvenient not to follow it. There must be some form of coercion. There is the necessity for workers to live together during factory hours. There must be common arrangements about timekeeping, safety and similar matters. Here again, workers are ready enough to submit to a necessity which they recognise. They are not so ready to submit to a person who may be unnecessarily rude. In

<sup>8</sup> Alexander Ure, *Philosophy of Manufactures* (1835), p. 15.

one large factory in this country all disciplinary rules are submitted to and agreed by the Works Council before they are promulgated.

There is in fact no reason whatever why *all* discipline of this character *which is necessary* should not be imposed by consent. The chief obstacle is resentment caused by the human frailty of those who make the plans, who are responsible for discipline of the first type—the discipline of essential procedure. There is a strain of bureaucracy in every man. And time after time those who are responsible for making plans become so intrigued with the ingenuity of their own regulations that they forget entirely that the only justification for any item of procedure “is that it helps to get the work done.”

### *Red Tape*

That is why Fayol's sixteenth Administrative Duty—“avoidance of red tape”—is an essential part of discipline. That is what “red tape” is, regulations which do not issue from the necessities of the job, but from some individual's passion for procedure for its own sake. It ties nothing, except the hands of the men who are trying to get on with the job. And if they are not very careful, the next step is that they are led aside into the jungle of officialdom and quietly bayoneted. Because once a man has allowed the bureaucratic devil to dominate him, no heresy seems more damnable than wanting to get on with the job. It interferes with his devotion to procedure. He becomes as ruthless and unscrupulous as a morphine addict deprived of his escape from himself. The lengths to which trafficking in dangerous drugs can go are a matter of record. Bureaucracy—the habit, not any particular individuals—is the most dangerous drug in the modern world.

It is the effects of this drug which lead sensible workers to resent discipline. They are right to resent any procedure, any multiplication of regulations, which cannot be shown to be essential to orderly work. The cure for that resentment, where it is unfounded, is explanation. Where it is well founded, the only cure is to cut away the red tape.

### *Stability of Staff*

Equity expressed through a sound system of discipline which avoids red tape, issues in Fayol's twelfth Principle—“Stability of

Staff." Human institutions are like machines in this: they need to be "run in." Men who are strangers to each other, who have not rubbed up against each other for a period and worn down some rough spots in the process, never work as well together as a team which has had time to make its adjustments. Equally, human institutions need decarbonising from time to time. There is a deposit of habit, of current practice, which checks efficiency if the cylinders are not cleaned out and the valves ground in. Sometimes, though more rarely, they need reboring. Unlike machines, they develop a great deal of internal resistance to these necessary processes. Business, owing to the constant index of the trading account, has a stimulus not to neglect them too long. The question of how to overcome that resistance in our great public services against the tremendous force of professional conservatism is democracy's greatest unsolved problem.

## CHAPTER VII

### CONTROL

FAYOL's sixth aspect of Administration was Control. Here there is in his own work no elaborate statement of Principles . . . merely his fifteenth Administrative Duty—"subject everything to control."

#### *The Historical Necessity for Control*

Indeed the conception of control as a principle and some knowledge of its methods are probably more widespread and generally developed in human undertakings than any of the other aspects of administration which have been discussed. Through the tally sticks of mediaeval accounting, through the abacus—still a universal piece of office equipment in Scandinavian countries—to the miracles of modern punched card machinery, administrators all down the ages have been interested in methods of keeping themselves informed as to the results of their plans and orders.

The necessity for such information has been felt perhaps most strongly in the field of government. Parliamentary government in Great Britain was founded on the control of expenditure by the Commons through refusal of supply to the executive—at that time the Crown. Apart from resistance to the raising of revenue to which the citizen took exception—"no taxation without representation"—Government property has always required closer guardianship than private funds. In the first place, there is a curious and almost universal kink in common morality where the State is concerned. A man who would never dream of robbing his employer's till, still less of stealing from a neighbour, will cheerfully falsify his Income Tax return and regard as priggish the suggestion that such action is dishonest.

In the second place, Government money is administered by salaried officials who have no personal financial interest in economy. The information and decisions within their control are, on the other hand, of great financial interest to others. For many centuries in this country, and still in many other lands, public finance has been peculiarly susceptible to corruption. In Great Britain we have succeeded during the last century in building up

a tradition and a system of pre-authorisation and detailed audit of public expenditure which have made direct financial corruption almost unknown. But we have paid heavily in terms of time and administrative delays for this palm-oil-proof procedure.

### *Some Army Scandals*

At an earlier period in our history there are many interesting examples of the tremendous struggle to evolve some method of control which would overcome the human tendency to be light-fingered with public funds. From the Restoration almost to the end of the last century, regiments of the Army were treated as the property of the Colonel. He was paid a capitation grant by the State per man on the strength, and out of this he clothed and fed the regiment, retaining any balance as his own emoluments. Taking over a battalion was frankly a speculation regarded much as buying an interest in a private business would be regarded to-day.

At one stage, as a means of improving their financial position, colonels of regiments were allowed officially to maintain a number of fictitious men on their strength, nominal bodies for whom they drew the capitation fee, but who never materialised in the flesh.

The system was obviously open to the wildest abuse by the unscrupulous. Sir John Fortescue records one instance in Ireland in the reign of William III:

"The Treasurer of the Army . . . William Harbord, a civilian and a Member of the House of Commons . . . by some jobbery had contrived to obtain an independent troop of cavalry for which he drew pay as though it were complete, though the troop in reality consisted of himself, two clerks whom he put down as officers, and a standard which he kept in his bedroom. This was the only corps which was regularly paid."<sup>1</sup>

To get round this difficulty, the system of musters was introduced. Colonels were visited by representatives of the Government and required to parade the full battalion—the figures authorised—numbers being checked against the actual bodies. There are many amusing stories of hasty and temporary recruitment of the maimed, the halt and the blind, to meet the requirements of an

<sup>1</sup> *History of the British Army*, V, i, p. 346.

unexpected muster. So recognised and general became this practice that a high officer was appointed directly by the House of Commons—the Commissary General of Musters—to organise this work. A muster was, of course, a form of control.

The difficulty of effective control in public institutions is a real one. It is always with us. In the British Army in the 1914–18 war there were constant arguments as to what was the real “strength” of a battalion for different purposes. A battalion, apparently fully up to strength when it was a question of rations on Monday, suffered large and mysterious wastage, not attributable to casualties, when it was a question of finding a working party on Wednesday.

### *The Change of Emphasis in Ideas of Control*

In World War Two, the maintenance of a proper balance of trained reinforcements of the many specialised categories required by the wide-flung units of the Royal Air Force was a constant problem. To maintain up-to-date and accurate controlling figures in London of the exact position in all parts of the world was by no means simple. Yet without such controls it was impossible to direct the flow of trained officers and men overseas, or to determine correctly the proper balance of training establishments of different kinds and the assignment of recruits to them.

It is the same with material. Throughout the war, correct forecasts and current figures of the output of aircraft of different types, of the rate of wastage and of speed of repair were essential both to a balanced view of national strategy and to the effective control of production. But it has seldom been possible for those responsible to obtain complete accuracy. C. E. Montague once wrote that “Whenever a soldier goes before a Medical Board, it is soon clear that he wants to be thought either less fit than he is or more fit.”<sup>2</sup> It is the same with figures reflecting responsibilities whose discharge is open to public criticism. Whenever they are brought to the bar of public opinion, it is soon clear that someone wants them to appear either less than they really are or more than they really are.

This very brief sketch of typical difficulties of control in public administration shows that there has been some shift of emphasis with the lapse of time. Almost up to the beginning of this century

<sup>2</sup> *Disenchantment*, p. 61.

the central problem in the view of both administrators and the public was the prevention of positive corruption, deliberate speculation in some of its numerous forms. The exceptionally high standard in this respect achieved in our central Civil Service has, to a great degree, relegated the question of direct financial fraud to a secondary place. The major issue of our own time is rather to provide the administrator and the public with figures which really reflect the results of policy and which provide a sound basis alike for an assessment of past performance and the determination of future action.

On the one hand, it is necessary to remind ourselves how recent is the assumption that deliberate fraud where public money is concerned is exceptional. The combination of strict accounting, strong public opinion and improved personal and professional standards which have made this achievement possible are a recent growth. During the last century the King's brother, as Commander-in-Chief, rewarded his not very distinguished mistress by placing at her disposal 300 commissions in the Army. The lady's footman was discovered on a transport with the rank of Lieutenant-Colonel, on his way to take command of a battalion of a famous regiment on active service in the West Indies. The House of Commons found it necessary to whitewash His Royal Highness.

### *Need for Ethics of Administration*

On the other hand, the change of emphasis which has been described raises the wider issue, whether the present concentration on forms of control designed primarily to prevent financial fraud is in fact sufficient. Can we develop an effective administration in the modern sense, can public servants play their proper part in the management of the State without a professional and ethical code which is proof against political pressure and which is recognised by the public as a salutary check on the abuse of transient political power? In this country there is a strong tradition that the Civil Servant should abstain from political activities and possess a flexibility which enables him to serve loyally under a government of whatever political complexion. In return, his tenure of employment is virtually guaranteed.

This arrangement does not appear to emphasise sufficiently that in the field of administration the Civil Servant is, or should be, a

professional expert, which Cabinet Ministers are not. And in matters which concern administrative technique as opposed to policy he is or should be increasingly scientific in method. But science in method is impossible without respect for facts, and recognition that administrative technique is a matter of principle, not of opinion. Moreover, effective instruments of control cannot be developed, unless it is accepted by all concerned that statistical misrepresentation and other breaches of administrative principle are as unethical as any other form of fraud. If the Civil Servant, without damage to his professional prospects, was enabled to apply for a transfer when a Minister called for action contrary to a generally established administrative code, and was expected to do so as a matter of professional honour rather than remain a party to unethical practices in the administrative sense, his usefulness would be much increased.

### *New Ideas of Control in Business*

In business there has also been a great advance, since the first Companies Act was passed in 1862, in the general methods of dealing with the possibility of fraud and in the moral outlook of the majority on this question.

There has perhaps been less effort than in the public service to make financial control absolutely watertight as regards precautions against influences which may be brought to bear on the individual. But business has gained in one respect for this very reason. Its financial controls were somewhat broader than the State's meticulous pre-authorisation of every sixpence. It was therefore better placed to accept and to develop that shift of emphasis which has already been mentioned, the change from regarding financial figures as records designed to describe past activities and to uncover peculation, towards treating them merely as one aspect of a general statistical apparatus which would measure currently every aspect of an undertaking's operations.

A second factor making for acceptance of this new point of view in the business world was the association enforced by power production between accountants and engineers. Working together in the same undertakings, they could not fail to influence each other's outlook, despite the wide difference in their respective professional trainings. Thus the accountant acquired something

of the engineer's interest in problems of measurement outside the immediate financial field. The engineer began to apply his scientific training to accountancy problems. He appreciated how financial figures might add to his own knowledge of the processes he was trying to manage and to formulate, however vaguely, a demand that all the accounting processes in any particular undertaking should be geared together as parts of a single system.

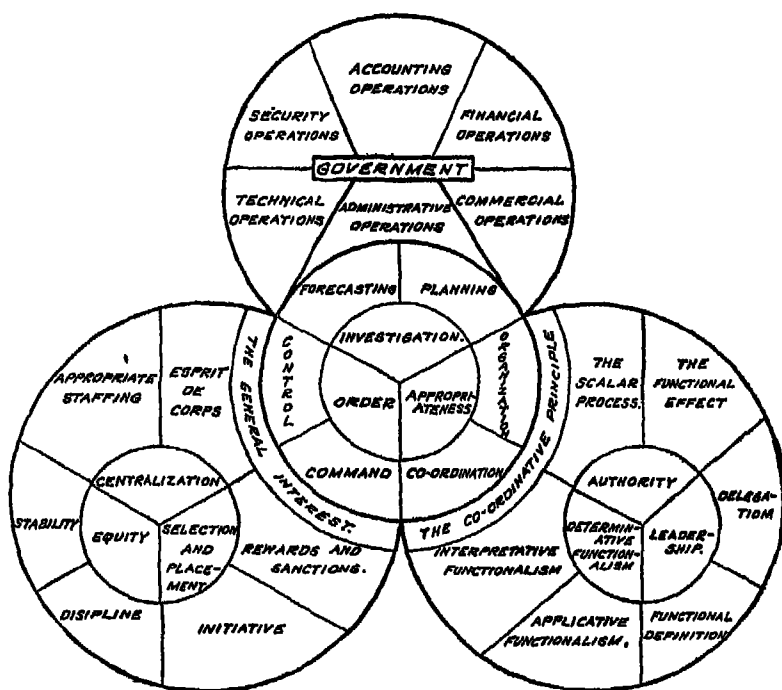
There are still accountants, particularly accountants practising professionally, who conceive of their function largely on the older basis. Their duty is to audit the books of a client, satisfy themselves that they are in order and give a certificate. But the great majority of modern businesses are not satisfied with these limitations to their instruments of control. Figures presented some weeks after the conclusion of each year or each half-year do not accord with their ideas of what is required of management. They demand current figures month by month and week by week, figures which will reflect the facts before it is too late to correct adverse tendencies, and in time to be of real use in forecasting the future.

### *Control as a Continuing Activity*

That is perhaps the most arresting single fact about modern ideas of administration. The various aspects which Fayol has analysed, if arranged in order of time, make the segments of a complete circle. Forecasting leads to planning. The next operation is organisation, which issues in co-ordination. Then comes Command and, finally, Control, next to Forecasting again, and appropriately next to it, since much of the material thrown up by a modern system of control is as valuable for looking forward as for reviewing the past. It is the factual basis of forecasting the next period ahead. These relationships are shown in Figure V, "The Pattern of Administration."

In this, such an analytical approach corresponds with Mary Follett's more psychological attack on the same group of problems. She emphasised continuously the importance of realising the reciprocal reactions of human beings to each other. An organisation "never stands still." It is composed of human beings, themselves living, changing, developing, decaying organisms. Everything that happens, every word that is spoken or not spoken, changes those individuals, modifies their relations with each

FIGURE V



THE PATTERN OF ADMINISTRATION.

other. Similarly the environment, the human environment, in which those individuals work and on which they are dependent, is changing too. There are constant action and reaction in the factors which go to make up public opinion: to the Civil Servant, public opinion is the basis of policy; to the industrialist it is demand.

We speak of a problem or an issue. We divide up time into seconds, minutes, hours, days, weeks, months and years. But this isolation is an intellectual convention—a convenience. It is artificial, an aid to thinking. There are no single issues, no questions which exist alone. In the very act of discussing ideas, men change them, modify the situation. Time itself is a continuum. To-day or to-morrow, this year or last year, are concepts in our minds.

Mary Follett writes that one of the advantages of a permanent planning board is—

“that the circle or spiral is not broken in the transition from planning to activity and from activity to further planning. A mistake we often tend to make is that the world stands still while we are going through the process of a given adjustment. And it doesn't. Facts always change, we must keep up with the facts; keeping up with the facts changes the facts.”<sup>2</sup>

And again:

“Until we look on control as a continuing activity, we shall not get out of the fallacy that we can solve problems. The belief that we can is a drag upon our thinking. What we need is some process of meeting problems. When we think we have *solved* a problem, well, by the very process of solving, new elements or forces come into the situation and you have a new problem on your hands to be solved.”<sup>3</sup>

Thus, as has been emphasised, in connection with every aspect of administration, the static view, the formal analysis, is reflected dynamically, has its psychological counterpart.

### *Distinction between Control and Accounting*

Fayol, though the great bulk of his work was completed before the end of the last century, was fully seized with this modern

<sup>2</sup> From “Individualism in a Planned Society,” in *Dynamic Administration*, p. 304.

conception of Control. It will be noted that he separated it from accounting altogether. The latter, under the title "Accounting Operations," he treated as one of the six essential functions. He included under this title "Stock-taking, balance sheets, accounts, costing, statistics, etc."

Control, on the other hand, he regarded as an aspect of Administration. He defined it as "Seeing that everything is being carried out in accordance with the plan which has been adopted, the orders which have been given, and the principles which have been laid down."

This distinction was re-emphasised by the latest attempt to apply modern ideas to the government of a great democratic community—the Report of the President's Committee on the Administrative Management of the Federal Government of the United States. The United States, as in this country, has a Department of the Treasury, responsible for collecting the revenue, the disbursement of all public funds, and the accompanying accounting procedures. But this report laid down quite definitely that financial control in the broader sense is one of the three "central management agencies" which must be under the hand of the Chief Executive. The report proposed that the Bureau of the Budget, which should concern itself with the translation of policies and plans into financial terms, the control of departmental expenditure, organisation and methods and the issue of instructions, should be separated from the Treasury and should be responsible direct to the President. This proposal is only Fayol's differentiation between accounting as a function and control as an aspect of administration translated into other circumstances.

### *Effect on the Functions of the Accountant*

This modern view of control, once it is accepted, affects both the methods adopted by the Accounting Function and the kind of figures required by the Administrator. The former, whether it provides the Administrator with controlling figures as well as carrying out its accounting functions or not, becomes manifestly much more specialised. Its duties do *not* include control. That is the province of the Administrator. The function of accounting is to furnish figures.

Moreover, assuming that the ideal of any organisation is to move towards a more and more scientific basis in its management,

it is of the essence of an accounting function so conceived that the figures provided should be as detached and impartial and above question as possible. Thus, in discussing the duties of the official known in the United States as the Comptroller, Mr. J. P. Jordan has written:

"Do not mistake this specification of knowledge necessary on the part of the Comptroller and his staff as meaning anything beyond the permitting of intelligent compilation and interpretation of figures. Under no circumstances whatever should the Comptroller or any of his staff presume to tell the other department heads what they should do, as this would be fatal. Not only would it irritate the department heads, but it would also usurp the function of the chief executive."<sup>4</sup>

This may sound a truism. But a widespread acceptance of this view of the place of control in administration and of accounting and statistics in relation to control would yield some salutary changes. In this country, for instance, many businesses are owned by financial interests, which virtually limit their administration to the examination of financial figures at periodic "Board Meetings" in London. The actual conduct of the business is left to the managing director or general manager, who is judged purely on the periodic financial results. Often the board of directors or some predominant interest on the board has its own tame accountant who prepares and presents the figures. Such absentee financial direction is not in the best interests of the country's economic life. Nor are directors who are satisfied with this purely financial form of control discharging their responsibility as administrators.

Much of the discontent and frustration observable in our machinery of government may be traced to the fact that the Treasury, the accounting department, is also the central agency for dealing with policy in financial terms. Thus its control of expenditure, which is an over-riding managerial function, is exercised by a department which is regarded by the remainder as collateral. The central character of these Treasury functions is not accepted. Decisions are viewed as "Treasury decisions" and not as Cabinet policy. On the other hand, its exercise of those functions, which, if it is to be effective, must be on broad lines, is necessarily

<sup>4</sup> *Handbook of Business Administration*, p. 419.

coloured by its accountancy preoccupations. Anxious that no small item should pass which has not been "duly authorised," it tends to impose on departments a degree of detail in financial supervision which is as irritating as it is ineffective in avoiding waste.

The kind of figures required by the Administrator to exercise control in the modern sense have been the subject of many books. Mr. T. G. Rose has written a useful and practical short study.<sup>5</sup> Each undertaking must in the upshot work out the system best adapted to its special circumstances. But certain underlying principles may be distinguished.

### *The Principle of Uniformity*

The first of these is the Principle of Uniformity. All figures and reports used for purposes of control must be in terms of the organisation structure. No person's effort should be expressed in any figures which he is not in a position to influence. This, of course, is merely an application to the processes of control of the Principle of Correspondence already discussed with reference to Organisation. Authority and responsibility must correspond. Since responsibility is accountability for the discharge of duties, the figures in which that accountability is recorded must equally correspond with the individual's authority.

### *The Principle of Comparison*

A second is the Principle of Comparison. All figures and reports used for purposes of control should be in terms of standards of performance required, and, where necessary, of past performance. This means quite simply that figures which merely show a comparison between performance in some arbitrary period and in some other, equally arbitrary, period in the past are not very informative. Figures set against a pre-planned performance which the management intended to reach at least show whether its intentions are being realised or not and suggest enquiry into the why and the wherefore of discrepancies.

Comparing, for instance, this year's sales with last year's may mean nothing or less than nothing. Changes in economic conditions, adjustment of the volume and direction of sales effort,

<sup>5</sup> *Higher Control*, by T. G. Rose (London, Sir Isaac Pitman & Son, Ltd.).

any one of a dozen factors may have changed the circumstances completely. The figures are meaningless. Any executive who prefers to do nothing about it can point out endless reasons why the figures are different. But this year's sales, compared month by month with a carefully established quota, built up after discussion with all concerned, is a challenge to each individual affected as to why he is not fulfilling that part of the management's plan to which he had agreed.

Budgetary control means no more than pre-planning expenditure in the same way.

There is much nonsense talked about the difficulty of setting standards. It is not difficult. It is always possible to set up some kind of mark to aim at. At first it may be rather an arbitrary mark. A very useful start is to ask oneself, if, theoretically, it were possible to do a particular job perfectly, without any losses due to normal human accidents, sickness, holidays and so on, what would represent 100 per cent. performance? Experience in working such a standard and building up the right deductions to allow for each of the factors which make performance fall short of perfection, will shape it into a reasonably accurate check on the actual results. The important point is that the administrator should have a mark and force himself to examine and to explain all the reasons for deviation from that mark. Whether the mark itself is in fact an accurate estimate of what the actual accomplishment should be is a secondary consideration, provided it is not too modest an estimate. Examination of the reasons for deviations will quickly suggest necessary modifications.

### *The Principle of Utility*

The third is the principle of Utility. Figures and reports used for purposes of control vary in value directly with:

- (a) The appropriateness of the period covered to the end in view.
- (b) The time separating the end of the period covered from their use.

Here again it is necessary to emphasise the conventional character of the divisions of time and of the thinking built round them. Both government and business tend to build their controls

round days and weeks, months and years. But for one form of activity a daily control figure may be so many times too long a period that it is meaningless, while for another a yearly view may be as many times too short.

In an earlier chapter reference was made to methods of comparing performance with standard minute by minute.<sup>6</sup> Such detailed and immediate control is rare. It is, however, the practice of the Austin Motor Company in times of peace. Every machine is geared to an electrical control which records automatically in a small central office in each department all breaks in running time. The clerk in charge of the control room enquires immediately into any stoppage which appears abnormal and annotates the roll of paper on the recording device. These rolls are sent in to the costing department, which thus has a minute-by-minute record of the performance of each machine. Incidentally, the Controller once said that more than 90 per cent. of the avoidable stoppages could be traced to faults in management.

The American Telephone and Telegraph Corporation has discovered that for planning development and the control of long-term capital expenditure annual budgets are virtually useless. For many years now the Corporation has had a ten-year plan of general development, and detailed budgets for shorter periods are determined within the general framework of that plan.

Accounts of trading activities rendered yearly or half-yearly do not on the whole enable a business to correct tendencies liable to reduce a planned profit *in time* to affect the profit period under review. Monthly figures at least are necessary to give current control. That they should be minutely accurate from the accounting standpoint is of far less importance than that they should be available immediately after the conclusion of the period to which they refer.

This last consideration applies, of course, to all figures used for control. Reports and statistics completed some time after the close of the period to which they refer become progressively less useful with every day that elapses. The older view of accountancy, which insisted on an elaboration of double entry and, because it was primarily concerned with the prevention of fraud, was inclined to pride itself on chasing halfpence, is a definite danger from this standpoint. Even cost accounting has not been guiltless of an excessive preoccupation with a theoretically perfect distribution

<sup>6</sup> v. Chapter III, "Mind before Methods."

of overhead cost, which lost sight of the fact that many of the costs thus calculated were wholly outside the control of the unit to which they were distributed and thus gave the administrator no information of any practical value. If "a stitch in time saves nine," a figure in time is worth nine hundred which are too late to do anything about it.

### *The Exception Principle*

The fourth and last principle is "the exception principle." This cannot be stated better than in F. W. Taylor's own words:

"It is not an uncommon sight, though a sad one, to see the manager of a large business fairly swamped at his desk with an ocean of reports and letters, on each of which he thinks he should put his initials or stamp. He feels that by having this mass of detail pass over his desk he is keeping in close touch with the entire business. The exception principle is directly the reverse of this. Under it the manager should receive only condensed, summarised, and *invariably* comparative reports, covering, however, all of the elements entering into the management, and even these summaries should be carefully gone over by an assistant before they reach the manager, and have all of the exceptions to the past averages or to the standards pointed out, both the especially good and the especially bad exceptions, thus giving him in a few minutes a full view of progress which is being made, or the reverse, and leaving him free to consider the broader lines of policy and to study the character and fitness of the important men under him."

### *Psychological Bases of Control*

This quotation leads directly to the second aspect of Control, namely, its psychological side. Far too many administrators are apt to think that when they have a complete and elaborate apparatus of figure control, when they know the facts about any undertaking, they are controlling it. It is as foolish as to imagine that because a general has first-class intelligence about the enemy and admirable administrative statistics about his own forces, he has won his campaign. These things are essential, of priceless value.

<sup>7</sup> F. W. Taylor, *Shop Management*, pp. 126, 127.

But they are only apparatus. The true worth of such equipment, whether to the administrator or to the general, depends on what they do about it. Whether in business or war, there are factors in every situation which defy a purely numerical arithmetic.

If they wish to see that "everything is being carried out in accordance with the plans, orders and principles laid down," they must satisfy themselves that those plans, orders and principles are not only understood, but are adopted intellectually and emotionally by those who have to execute them. Intellectually, because to understand the letter of a plan is not enough: the reason for it, the underlying logic must be appreciated or subordinates cannot make the adjustments which are inevitable in practice, correctly. Emotionally, because no man can put real initiative and enthusiasm behind a project with which he has not identified himself in spirit as well as in mind.

### *Effective Unity*

In other words what they are aiming at is control through effective unity. That is why some nations adopt fascism: "they find that unity is necessary, and they have not yet found out how to get unity in a better way, or rather, how to get nearer a genuine unity."<sup>8</sup> The most important fact about unity is that it is a process, not a product. It is impossible, for instance, to isolate human motives and deal with them one after the other. "Lives are controlled not so much by certain 'drives' or wants as by their relation to one another."<sup>9</sup>

In the same way, "the parts of a business should so move together in their reciprocally adjusting activities that they make a working *unit*, not a congeries of separate pieces. You do not have co-ordination by two units existing harmoniously side by side: the units have to make a unity before you have co-ordination."<sup>10</sup> But in every situation we respond to stimuli which we have helped to make. "The reciprocal activity of the parts changes the parts while it is creating the unity."<sup>11</sup> For instance, the various departmental policies in a business (production, sales, financial, personnel) help to build up general policy: the interrelating of

<sup>8</sup> M. P. Follett, "The Psychology of Control," in *Dynamic Administration*, edited by H. C. Metcalf and L. Urwick (Sir Isaac Pitman & Sons, Ltd., London).

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

these policies in one sense creates general policy. But simultaneously these departmental policies are being influenced by general policy *while* they are making it.

Such reciprocal adjustment is something more than mere adjustment. The relating of different functions has a value beyond the addition of the parts. If it is a right kind of relating, it is a process which creates a unity leading to further unities.

In an earlier chapter it was emphasised that the underlying principle of organisation was co-ordination.<sup>10</sup> But the degree of control exercised by an administrator will depend partly on how far he can unite successfully the ideas of the men round him. In other words, the organising activity is the directing activity. The *interacting is the control: it does not set up a control. It is the same with the organism. An individual cannot walk without that co-ordination of muscles which is control. He gains more and more control over himself as he learns to co-ordinate his various tendencies.*

Authority arises within the unifying process. Every living process is subject to its own authority, the authority evolved or involved in the process itself. It is the same with social control. Genuine authority arises spontaneously in the process of building up an integrated unity. It is not all at the top. It goes with function. What administration should work towards is accumulative authority woven out of the interrelated experience of all those who are performing some functional part of the total activity. The greater the integrated unity, the more direction becomes self-direction. The ideal of all true administrators is realised. In popular phraseology, "the show runs itself."

### *Fear of Control*

It was the view of the psychology of control, which has been summarised very briefly, and largely in her own words, in the preceding paragraphs, which led Mary Parker Follett to the broad conclusions on the subject which constituted the last lecture given in public before her death. She pointed out that men fear the word "control." They feel that the rights of the individual are being invaded. But this fear does not show sufficient understanding of the new conceptions of control which are being evolved in the best managed modern businesses. In particular:

<sup>10</sup> v. Chapter IV, "Co-ordination."

1. Control is coming to mean increasingly control by facts rather than control by persons. It is "the law of the situation" which dictates to all of us, not some individual's whim.

2. Central control is coming to imply the correlation of many controls in place of a super-imposed control. The secret of successful administration is not the constant creation of new departments, fresh authorities, but the relation of existing parts of the machine so that the essential controls emerge from their interacting.

Indeed, additional mechanism creates further problems of internal co-ordination, so that a large proportion of the efforts of all concerned is devoted to keeping in step rather than to stepping out.

These considerations led her to four broad rules or principles, which should guide the administrator in securing co-ordination, which, by definition, is control. They were:

1. Co-ordination by direct contact of the responsible people concerned.
2. Co-ordination in the early stages.
3. Co-ordination as the reciprocal relating of all the factors in a situation.
4. Co-ordination as a continuing process.<sup>11</sup>

### *The Principle of Direct Contact*

The first of these principles she took from Sir Arthur Salter's *Allied Shipping Control*, where he describes how during the 1914-18 War machinery was established to secure Inter-Allied co-operation in the allocation of shipping. This machinery was very successful. And he attributes that success to the fact that officials in the different countries who were responsible for different aspects of the problem were encouraged to meet each other directly. They did not have conferences on which only the chiefs of departments met: still less were they compelled to negotiate through their respective foreign offices. The people actually engaged on the job, sometimes quite subordinate people, were instructed to meet each other and—within the limits of their functions—to settle issues and to act.

<sup>11</sup> M. P. Follett, "Individualism in a Planned Society," in *Dynamic Administration*.

In fact, this principle is a restatement, in psychological form, of the point already touched on from the structural standpoint in dealing with the Scalar Chain, where it was emphasised that the necessity for such a chain of authority "does *not* imply that every action must climb painfully through every link in the chain."<sup>12</sup> From another angle, it is an aspect of delegation. Not only must the leader delegate properly himself; he must ensure that each of his subordinate supervisors delegates properly in his turn—if he wishes for true co-ordination. It is well worth his while to endure a certain percentage of human error, which cannot be cured in any event, to avoid the frustration and paralysis of initiative which result from too frequent an insistence on the principle of authority.

### *Co-ordination in the Early Stages*

The second principle—co-ordination in the early stages—flowed logically from Mary Follett's analysis of the nature of decision: "a decision is only a moment in a process." It is impossible to secure the enthusiastic adherence of all concerned to any new principle or policy unless they have participated from *the beginning* in the processes of mental development out of which the principle or policy has been built up.

In any highly integrated organisation, almost any new departure involves a complex chain of practical consequences, which demand the adjustment of perfectly legitimate points of view which may, however, appear to compete or even to be mutually incompatible. There are claims, for instance, on facilities of all kinds—money, materials, staff, space, equipment and so on.

If the existence of these relative priorities is recognised from the start of the scheme and all concerned are encouraged to raise and to face the difficulties which they feel *at the beginning*, the chances of adjustment, of integration, are good. If, on the other hand, the scheme is started on a basis of general goodwill without particularised discussion of those aspects of the problem which are likely to place a strain on the impulse to co-operate, the chances are less favourable. It is much easier to secure acceptance of a scheme if no one understands precisely what is involved; but it is much more difficult to make it work successfully.

<sup>12</sup> v. Chapter IV, "The Scalar Chain."

*Reciprocal Relating of all the Factors*

The third principle—co-ordination as the reciprocal relating of all the factors in a situation—is an application to the dynamic aspect of organisation of the same psychological truth as forms the basis of the principle of the Span of Control.<sup>13</sup> It is not enough to adjust A. to B., or, rather, to help A. to adjust himself to B. B. is influenced by C., and it is to the relationship that A. needs to adjust himself. In other words, each process of adjustment creates in itself a new situation. As one president of a great business, quoted by Miss Follett, remarked: "If my heads of departments tell me that Department D. and Department E. are co-ordinated, and then I find that Department D. and Department E. are exactly the same as they were before, then I know that what I have been told is not true; they are not co-ordinated. Co-ordination means change in the parts co-ordinated."<sup>14</sup> This interrelation of every part of an organisation with every other part and again with every other part as it has been permeated by all the others, is, of course, an ideal never realised perfectly in practice. But it is a reasonable and practical mark to aim at.

The great enemy of this conception of real interpenetration in practice, is, of course, departmentalism. Many people argue that the departmental manager should subordinate his departmental point of view to the good of the whole. That is nonsense. Either his department has no excuse for existence or its point of view is *needed in the whole*. It must be reconciled with all the other points of view involved, but it must not be abandoned. Men should never be encouraged to de-departmentalise themselves. They should be taught to inter-departmentalise themselves.

*Co-ordination as a Continuous Process*

The fourth principle—co-ordination as a continuous process—rests on the fact that the whole process of arriving at adjustments in relation to work falls into two stages. In the first place men deal with an individual problem: the sales manager and the production manager thrash out an agreed course of action with reference to a particular line. In the second stage they begin to classify their problems, to find where there are points of resemblance and

<sup>13</sup> v. Chapter IV, "The Span of Control."

<sup>14</sup> M. P. Follett, "Individualism in a Planned Society," in *Dynamic Administration*.

difference between two issues which arise in succession. They begin to ask themselves whether they have evolved any principles for dealing with problems of this kind and that kind. They develop precedents.

Each time, however, that men solve a problem in relationship they create a new situation. That is to say, the principles, however convenient as a shorthand method of thinking, are only guides to action. If they become rules—rigid—they lose their utility. There must be continuous machinery for working out new principles and applying existing principles to cases.

One very able business organiser, having written a complete manual of procedure for a large undertaking, inserted this final clause:

“If in their practical application any of these instructions appear repugnant to reason and common sense, let reason and common sense prevail.

## CONCLUSION

"Let reason and common sense prevail." On that note, in the prevailing state of scientific knowledge bearing on the individual and on social groups, any study of administration must necessarily close. No one as yet has a sufficient basis in exact knowledge to venture to be dogmatic in this field.

On the other hand, there is no question, as this little book has attempted to show, that a definite *technique* of administration is emerging and that there is a remarkable consensus of agreement among those who have studied the subject. Moreover, in the growing complexity of social grouping which has resulted from power-driven machinery, empiricism simply will not do. It fails conspicuously, as it often failed in World War Two, to create units of organisation in which the individual can serve with enthusiasm or lead with initiative. It becomes bound and helpless in the convolutions of its own apparatus. It afflicts with sterility and frustration the very individuals on whose drive and ideas it is dependent for results.

To secure widespread recognition of the existence and validity of the technique is a difficult task. Reason and common sense are too easily invoked as a cloak for current practice or to disguise what is in fact merely the retention of power by particular groups or classes. It cannot be too strongly emphasised that habit and custom are *not* reason. They are merely habit and custom and often highly irrational. A shift in the social situation may make what appeared common sense yesterday into uncommon nonsense to-day.

That is in fact precisely what has happened as a result of the Industrial Revolution. And until exact knowledge of social organisation catches up with the immensely increased power over material things which has developed from that revolution over the last century and a half, men are likely to use that power badly. They will use it less badly if they strive to be as exact and logical, as scientific, as they can be over the problems of administration which they have to meet.

They should never forget for a moment that the raw material in which administration works is human beings—human beings with

hopes and passions, loves and hates, fears and the divine courage of the spirit: a mixture, much like the administrator. That is without question the root of the matter, to remember that each individual, however humble, in the ordering of whose life an administrator may have some share, is but a replica of his own limitations. To forget this is *not* scientific. It is just lunatic. And the sciences which do forget it are bankrupt. As an American business leader once remarked:

"It was universally supposed that labour was a commodity. Nevertheless, labour could not and did not act like a commodity. It acted like human beings. It acted, in fact, from much the same motives with which employers acted, and not even the most dismal economist supposed that employers were commodities."<sup>1</sup>

Working in a field where there are still so many unknown factors, so much territory unexplored, the student can do no more than suggest a framework of thought, an arrangement of ideas and principles which may help others to make their own synthesis out of their own experience. Figure VI gives such a summary of the material discussed in the preceding chapters. The table accompanying it lists the various principles embodied in the figure and refers them to their source.

The fact that these principles, collected from the writings of half a dozen different people, many of whom made no attempt to correlate their work with that of others, can be presented in a coherent and logical pattern is in itself strong evidence that there is a common element in all experience of the conduct of social groups, that a true science of administration is ultimately possible.

That understanding of the principles is as yet perfect, no one would pretend. But even in their present incomplete form they are a far better guide to the effective integration of human effort than personalities or politics or a precarious balancing of power between various vested interests. As suggested in the Preface, what is most urgently needed at the present juncture in human history is a widespread recognition of this fact and social determination to give effect to it.

<sup>1</sup> E. A. Filene, *Successful Living in This Machine Age*.

TABULAR STATEMENT OF THE PRINCIPLES OF  
ADMINISTRATION TO ACCOMPANY FIGURE VI

*References:*

- HFF .. Henri Fayol's list of Administrative Principles.  
 HFAD .. Henri Fayol's list of Administrative Duties.  
 HFAA .. Henri Fayol's *Aspects of Administration*.  
 MR .. Mooney and Reiley's Principles of Organisation.  
 FWT .. Frederick Winslow Taylor's Principles.  
 MPF .. Mary Parker Follett's Principles.  
 GR .. Graicunas' Principle.  
 LUDC .. Principles of Direction and Control listed by L. Urwick.

| No. | Principle     | Ref. | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|---------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Investigation | FWT  | <p>"They develop a science for each element of a man's work which replaces the old rule of thumb method" ("Duties of Management," in <i>Principles of Scientific Management</i>).</p> <p>"Both sides must recognise as essential the substitution of exact scientific investigation and knowledge for the old individual judgement or opinion" (Evidence before Committee of the House of Representatives, 1923).</p> <p>"I have given four principles of organisation. The underpinning of these is information based on Research" ("Individualism in a Planned Society," in <i>Dynamic Administration</i>. All further references to MPF are from this source unless otherwise stated).</p> |
| (a) | Determinism   | LUDC | <p>"Every social phenomenon is the result of definite and ascertainable causes" ("The Principles of Direction and Control," in <i>Dictionary of Industrial Administration</i>, reprinted in <i>Cost and Production Handbook</i>. All further LUDC references are from this source).</p>                                                                                                                                                                                                                                                                                                                                                                                                       |
| (b) | Relation      | LUDC | <p>"Facts which are to form the basis of action must be in terms of the environment in which the action takes place."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| (c) | Analysis      | LUDC | <p>"The scheme of classification must be appropriate to the activity investigated."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| No. | Principle   | Ref.              | Statement                                                                                                                                                                                                                                                   |
|-----|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (d) | Definition  | LUDC              | "The facts must be stated in terms which correspond with the underlying sciences on which the activity investigated is based."                                                                                                                              |
| (e) | Measurement | LUDC              | "The facts must be stated in terms of definite units or standards."                                                                                                                                                                                         |
| 2   | Forecasting | HFAA              | " <i>Prevoir</i> as used here means both to foretell the future and to prepare for it" ( <i>General and Industrial Administration</i> , English translation. All further HF references are from this source.)                                               |
| 3   | Planning    | HFAA<br>HFAD<br>1 | <i>vide</i> "Forecasting," above.<br>"See that the plan of operations is carefully prepared and strictly carried out."                                                                                                                                      |
| (a) | Objective   | LUDC              | "It is a necessary preliminary to all activity to have a complete and clear statement of the object of such activity in the form of a policy or of instructions. Action must be so arranged as to subordinate all secondary considerations to that object." |
|     |             | MR                | "Every organisation implies an objective of some kind, and it exists only for one purpose, the attainment of this objective" ( <i>Onward Industry</i> . All further Mooney and Roiley references are from this source).                                     |
|     |             | HFAA              | "To govern is to conduct an organisation towards its objective by seeking to make the best possible use of all the resources at its disposal."                                                                                                              |
| (b) | Simplify    | LUDC              | "Every unnecessary element should be eliminated both from the tasks called for and from the processes required to perform those tasks. Work should be done with the fewest possible actions and the minimum necessary effort."                              |
| (c) | Standardise | LUDC              | "Whether in dealing with effort, material, designs, processes or quality, the best current common practice should be expressed in terms of definite units or standards which should be applied wherever possible and to the greatest possible extent."      |

| No. | Principle              | Ref.            | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (d) | Flexibility            | LUDC            | "The vitality of an enterprise is measured by its power of spontaneous reaction to changes in conditions, and of internal modification and rearrangement to meet such changes. . . . This power must be continually fostered and factors unfavourable to its development watched for and eliminated."                                                                                                                                                                        |
| (e) | Balance                | LUDC            | "Each portion and function of an enterprise should operate with equal effectiveness in making its allotted contribution to the total purpose."                                                                                                                                                                                                                                                                                                                               |
| (f) | Use existing resources | MPF             | "The process of co-ordination is one of interpenetration . . . it cannot be enforced by an outside body . . . . In a highly complex economic society there are many points of control. The organised relating of these should constitute the central control. A co-ordinating process active throughout the whole [organised body] should be the control."                                                                                                                   |
| 4   | Appropriateness        | IFAD<br>2       | "See that the human and material organisation are suitable for the objects, resources and needs of the undertaking."                                                                                                                                                                                                                                                                                                                                                         |
| 5   | Organisation           | IFAA<br><br>MIT | "Means to build up the human and material organisation of the undertaking, organising both men and materials."<br>"Organisation in the formal sense means order, and its corollary, an organised and orderly procedure. . . . It is impossible in any group undertaking even though the group may consist only of a few persons, bound together merely by some transient aim, to exclude the necessity for a certain order in procedure, and such order means organisation." |
| (a) | Continuity             | LUDC            | "The structure of the organisation should be such as to provide not only for the activities immediately necessary to secure the object of the undertaking, but for the continuation of such activities for the full period of operation contemplated in its establishment. This involves a continuous supply of personnel and arrangements for the systematic improvement of every aspect of operation."                                                                     |

| No. | Principle     | Ref.                 | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|---------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6   | Co-ordination | HFAA<br>MR           | <p>"To co-ordinate means to unite and correlate all activities."</p> <p>"Organisation begins when people, even if they be only two or more, combine their efforts for a given purpose. . . . But their efforts must be co-ordinated; which means that they must act together . . . [Otherwise] there would be no unity of action, and hence no true organisation of effort."</p>                                                                                                                                                                                              |
| 7   | Order         | HFAD 14<br>HFP 10    | "Ensure material and human order."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8   | Command       | HFAA<br>HFAD 3<br>MR | <p>"To command means to make the staff do their work."</p> <p>"Establish a management which is competent and has unity of purpose."</p> <p>"The technique of management in its human relationships can be best described as the technique of handling or managing people, which should be based on a deep and enlightened human understanding. The technique of organisation may be described as that of relating specific duties or functions to a completely co-ordinated scheme. . . . The technique of organising is anterior in logical order, to that of managing."</p> |
| 9   | Control       | HFAA                 | <p>"To control means to see that everything is done in accordance with the rules which have been laid down and the instructions which have been given."</p> <p>"Subject everything to control."</p>                                                                                                                                                                                                                                                                                                                                                                           |
| (a) | Uniformity    | HFAD 15<br>LUDC      | "All figures and reports used for purposes of control must be in terms of the organisation structure. No person's effort should be expressed in any figures which he is not in a position to influence."                                                                                                                                                                                                                                                                                                                                                                      |
| (b) | Comparison    | LUDC                 | "All figures and reports used for purposes of control should be in terms of standards of performance required and of past performance."                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| (c) | Utility       | LUDC                 | "Figures and reports used for purposes of control vary in value directly in proportion to the period separating them from the events which they reflect. They should be designed with the objects of assisting decision in the present and preventing waste in the future, and not as a record."                                                                                                                                                                                                                                                                              |

| No.   | Principle               | Ref. | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|-------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (d)   | The Exception Principle | FWT  | "The manager should receive only condensed, summarised and <i>invariably</i> comparative reports, covering, however, all of the elements entering into the management, and even these summaries should be carefully gone over by an assistant before they reach the manager, and have all the exceptions to the past averages or to the standards pointed out, both the especially good and the especially bad exceptions, thus giving him in a few minutes a full view of the progress which is being made or the reverse" ( <i>Shop Management</i> ). |
| (i)   | Direct Contact          | MPF  | "Adjustments should be made by direct contact between those who exercise responsible authority in the matters concerned."                                                                                                                                                                                                                                                                                                                                                                                                                               |
| (ii)  | Early Stages            | MPF  | "Contact must begin in the earliest stages of the process. You cannot, with the greatest degree of success for your undertaking make policy-forming and policy-adjusting two separate processes. Policy-adjusting cannot begin after the separate policies have been completed."                                                                                                                                                                                                                                                                        |
| (iii) | Reciprocal Relating     | MPF  | "Co-ordination is by its very nature a process of auto-governed activity... A policy is brought about by the interpenetration of the parts of the undertaking concerned. ... Heads of departments should not de-departmentalise themselves, but inter-departmentalise themselves. Departmental policy should be an integral part of what is known as 'general policy'. . . . The organising activity is the directing activity. The interacting is the control; it does not set up a control."                                                          |
| (iv)  | Continuing Process      | MPF  | "Machinery for co-ordination should be continuous, not set up for special occasions. . . . Then the circle is not broken in the transition from planning to activity and from activity to further planning. . . . Until we look on control as a continuing activity, we shall not get out of the fallacy that we can solve problems. The belief that we can is a drag upon our thinking. What we need is some process for meeting problems."                                                                                                            |

| No. | Principle                          | Ref.             | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10  | <i>The Co-ordinative Principle</i> | MR               | <p>"Co-ordination expresses the principles of organisation <i>in toto</i>, nothing less. This does not mean that there are no subordinated principles, it simply means that all the others are contained in this one of co-ordination. The others are simply the principles through which co-ordination operates and thus becomes effective."</p>                                                                                                                                                                                                                                                                                                                      |
| 11  | <i>Authority</i>                   | HFAD 4<br>MR     | <p>"Co-ordinate operations and efforts."</p> <p>"As co-ordination is the all-inclusive principle in organisation, it must have its own principle and foundation in <i>Authority</i>, or the supreme co-ordinating power. Always, in every form of organisation, this supreme co-ordinating authority must rest somewhere, else there would be no directive for any truly co-ordinated effort."</p>                                                                                                                                                                                                                                                                     |
| (a) | Correspondence                     | HFP 4<br>HFAD 13 | <p>"Unity of Command."</p> <p>"Pay special attention to unity of command."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (a) | Correspondence                     | FVT<br>LUDC      | <p>"Responsibility should be accompanied by its corresponding measure of authority" (<i>Shop Management</i>).</p> <p>"Authority and responsibility must be coterminous, coequal and definite."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12  | <i>The Scalar Process</i>          | MR               | <p>"It is essential to the very idea and concept of organisation that there must be a process, formal in character, through which the co-ordinating authority operates from the top throughout the entire structure of the organised body. . . . This scalar process is the same form in organisation which is sometimes called hierarchical."</p>                                                                                                                                                                                                                                                                                                                     |
| (a) | Direct Contact                     | HFP<br>HF        | <p>"The hierarchy."</p> <p>"It is essential to reconcile respect for hierarchical procedure with the necessity for speed in action. This is done as follows: Whenever co-ordination is required between two services it is evidently much simpler and speedier for the two heads of those services to make contact direct. And this is what they should do wherever possible. Hierarchical procedure will be safeguarded if their respective superiors have authorised them to make such direct contact; and the situation will be completely regularised if the heads concerned inform their superiors immediately of any joint action agreed." v. also 9(d) (i).</p> |

| No. | Principle                                      | Ref.   | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13  | <i>Assignment and Correlation of Functions</i> | MR     | "Always there is the last link where authority ceases to delegate its own authority over others and simply delegates or assigns specific functions. The scalar process ends where it always must, in functional definition. The final necessity in organisation without which there can be no true co-ordination even in the formal sense, is the correlation of all these functions."                                                                            |
|     |                                                | HFP 1  | "Division of Labour."                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 14  | <i>Leadership</i>                              | MR     | "Leadership is the form which authority assumes when it enters into process."                                                                                                                                                                                                                                                                                                                                                                                     |
|     |                                                | HFP 5  | "Unity of Management."                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| (a) | <i>Fair Play</i>                               | MR     | "The leader must be sensitive to the rights of [the led] and he must take measures to ensure that they are maintained for every individual throughout the organisation. In other words he must hug closely to the policy of 'Fair Play.' To this end the leaders must begin by playing fair with each other."                                                                                                                                                     |
| (b) | <i>Responsibility is Absolute</i>              | LUDO   | "The responsibility of all persons exercising authority should be absolute within the defined terms of that authority. They should be personally accountable for all action taken by subordinates."                                                                                                                                                                                                                                                               |
| (c) | <i>Example</i>                                 | MR     | "The leader must be everything that he desires his subordinates to become. Men think as their leaders think, and men know unerringly how their leaders think" (quoting General C. P. Summerall, Chief of Staff, U.S. Army).                                                                                                                                                                                                                                       |
| 15  | <i>Delegation</i>                              | MR     | "Delegation means the conferring of a certain specified authority by a higher authority. . . . When an organisation outgrows the possibility of universal face-to-face leadership there must ensue that feature of organisation which we may call sub-delegation. The leader no longer delegates an authority to do certain specific things. He begins to delegate an authority similar to his own, in other words, he delegates the right of delegation itself." |
|     |                                                | HFAD 8 | "Encourage the desire for responsibility."                                                                                                                                                                                                                                                                                                                                                                                                                        |

| No. | Principle                   | Ref.   | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|-----------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) | The Exception Principle     | FWT    | "It is not an uncommon sight, though a sad one, to see the head of a large business fairly swamped at his desk with an ocean of reports and letters, on each of which he thinks he should put his initials or stamp. He feels that by having this mass of detail pass over his desk he is keeping in close touch with the entire business. The exception principle is the very reverse of this . . . leaving him free to consider the broader lines of policy and to study the character and fitness of the more important men under him" ( <i>Shop Management</i> ; v. also 9 (d), above). |
|     |                             | MR     | "Moses chose able men out of all Israel . . . and they judged the people at all seasons: the hard cases they brought unto Moses, but every small matter they judged themselves" (quoted from Exodus).<br>"The law, written or unwritten, which governs those who exercise delegated authority is always the same."                                                                                                                                                                                                                                                                          |
| (b) | The Span of Control         | GR     | "No superior can supervise directly the work of more than five, or at the most six, subordinates whose work interlocks."                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 16  | Functional Definition       | MR     | "Functional Definition is the form in organisation that assigns all functions. . . . The scalar chain may be a long one . . . but always there is the last link where authority ceases to delegate authority over others and simply assigns or delegates specific functions."                                                                                                                                                                                                                                                                                                               |
|     |                             | HFAD 7 | "Define duties clearly."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| (a) | Specialisation              | FWT    | "The work of every person in the organisation should be confined as far as possible to the performance of a single leading function" ( <i>Shop Management</i> ).                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 17  | Determinative Functionalism | MR     | "In every organisation there must be some function that decides or determines the objective and the procedure necessary to its attainment . . . in secular government always known as the legislative."                                                                                                                                                                                                                                                                                                                                                                                     |
|     |                             | HFAD 5 | "Make decisions which are clear, distinct and precise."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|     |                             | FWT    | Planning; cf. his Order of Work Man, Instruction Card Man and Cost and Time Clerk in his <i>Functional Foremanship</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| No. | Principle                           | Ref.                            | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18  | <i>Applicative Functionalism</i>    | MR<br><br>IIFAD 1<br><br>FWT    | <p>"Another function moves through this procedure to the attainment of the purpose . . . the applicative or executive."</p> <p>"See that the plan of operations is strictly carried out."</p> <p>Performance; cf. his Gang Boss, Speed Boss, Repair Boss and Inspector in his <i>Functional Foremanship</i>.</p>                                                                                                                                                      |
| 19  | <i>Interpretative Functionalism</i> | HFAD 10 }<br>HFP 2 }<br><br>FWT | <p>"Impose penalties for mistakes and blunders."</p> <p>Cf. his Shop Disciplinarian in his <i>Functional Foremanship</i>.</p>                                                                                                                                                                                                                                                                                                                                         |
| 20  | <i>The General Interest</i>         | IIFAD 12 }<br>IIFP 6 }<br>MR    | <p>"See that individual interests do not interfere with the general interest."</p> <p>"One of the dangers involved in the growth of any organisation is the struggle and lust for power that appears among the leaders themselves, with the consequent loss of fine discipline and the subordination of the ambitions of the men at the top to the good of the group."</p> <p>"Community of Interest is the legitimate basis of every constructive organisation."</p> |
| 21  | <i>Centralisation</i>               | HFP 8<br>MR<br><br><br>MPF      | <p>"Centralisation."</p> <p>"The old method was domination, or co-ordination through absolute command. Then followed compromise or the making of mutual concessions. Finally has come integration, based on the common interest, in which each obeys the law of the situation."</p> <p>Cf. <i>passim</i> for "the law of the situation."</p>                                                                                                                          |
| 22  | <i>Appropriate Staffing</i>         | HFAD 6<br><br>MR                | <p>"See that each department has a competent and energetic head."</p> <p>"The final measure of the strength of [any organisation] may be stated in the simplest terms, the collective strength of the individuals who are responsible for its destinies."</p>                                                                                                                                                                                                         |

| No. | Principle                         | Ref.                                       | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|-----------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23  | <i>Esprit de corps</i><br><br>“ ” | HFP 14<br>MR                               | <p>“<i>Esprit de corps.</i>”</p> <p>“Two conditions only are vital: that the object [of the organisation] whatever its nature, be a desirable one, and a legitimate one. On this foundation can always be built a unity of doctrine which translates itself into a unity of spirit and this unity of spirit is the moving force that insures the maximum of co-ordinated efficiency in any given undertaking.”</p>                                                                                                                                                                |
| 24  | <i>Selection and Placement</i>    | HFAD 6<br><br>MR                           | <p>“Make careful selection of staff—each employee where he can be of most service.”</p> <p>“Any organisation, to be truly efficient, must be mobile in the highest sense . . . always there are positions to be filled, always there is need of men for higher responsibilities.”</p>                                                                                                                                                                                                                                                                                             |
| 25  | <i>Rewards and Sanctions</i>      | HFAD 9<br>HFP 7<br>MR<br><br>HFAD 10<br>MR | <p>“Reward men fairly and judiciously for their services.”</p> <p>“Incentives admit of a threshold classification—namely, incentives to save, incentives to grow and the wage incentive.”</p> <p>“Impose penalties for mistakes.”</p> <p>“Where human weaknesses exist, he [the ‘easy boss’] is more apt to allow for them than to attempt their correction. . . . He is essentially an unjust boss. . . . He is merely considering his own ease, even though it involves a denial to his subordinates of the help, encouragement and admonition to which they are entitled.”</p> |
| 26  | <i>Initiative</i>                 | HFAD 8<br>HFP 13<br>MR                     | <p>“Encourage the desire for initiative.”</p> <p>“What the employee needs above all else is the incentive to <i>grow on the job</i>, and every incentive and opportunity to grow into a better job.”</p>                                                                                                                                                                                                                                                                                                                                                                          |
| 27  | <i>Equity</i>                     | HFP 11<br>MR                               | <p>“Equity.”</p> <p>“The ideal of constitutionalism in management is to make the rule of justice as nearly automatic as is humanly possible.”</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| No. | Principle  | Ref.                              | Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) | Evidence   | LUDC                              | "No statement concerning any person in the enterprise which implies comment or criticism should be accepted by any person in authority without full opportunity being offered to the person concerned to deal with the matter. The usual rules of evidence accepted for legal purposes should govern the acceptance of any statement. No adverse comment should become a matter of record unless the individual concerned has had an opportunity of considering the particulars." |
| 28  | Discipline | HFAD 11<br>HFP 3<br>HFAD 16<br>MR | "Discipline"<br>"Avoidance of Red Tape."<br>v. under 20, above.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 29  | Stability  | HFP 12                            | "Stability of Staff."                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

# INDEX

- Accounting, functions of, 105-7  
 — uniformity, 107  
 Adjustments, 37  
 Administration as a function, 10, 42  
 — as a skill, 14  
 —, Fayol's analysis of, 15-16  
 —, nature of a general scheme of analysis, 13-19  
 —, six aspects of, 16  
 Administrative principles and duties, 42  
 — superintendence, 66  
 Allbutt, T. E., 15  
 Alphabetical division of individuals, 57  
 Analysis, 20, 119  
 Anderson, Louis F., 17, 43  
 Applicative functionalism (executive), 43, 53, 127  
 Appropriate staffing, 78, 127  
 Appropriateness, 17, 18, 19, 121  
 Assignment and integration of functions, 43, 53, 125  
 Authority, 42, 43, 45, 124  
 — and Responsibility must correspond, 45, 46  
  
 BACON, Francis, 15  
 Balance of processes, 32, 33, 121  
 Balancing of principles and methods, 68  
 Bata, 31  
 British Army, 67, 69, 90, 98  
 — Field Service Regulations, 75  
 Browning, Robert, 38  
 Burt, Dr. Cyril, 83, 84  
  
 CARNEGIE, Andrew, 82  
 Centralisation, 78, 81-82, 127  
 Characteristics of a good plan, 34  
 Charts, 23  
 Civil Service, administration of, 13  
 — — ethical code, 100-1  
 — — Treasury control, 106-7  
 Command, 16, 18, 19, 77-96, 122  
 — and control, principles of, 78  
 Committees, 71-3  
 —, successful working of, 73  
 —, weaknesses of, 72  
 Comparison, principle of, 107-8, 122  
 Complexity, danger of, 28  
 Continuity, principle of, 39, 40, 121  
 Control, 16-18, 19, 97-116, 122  
 — as a continuing activity, 102-4, 123  
 —, necessity for accurate figures, 99  
 —, span of, 52, 126  
 Co-ordination, 16, 18, 19, 35-55, 56-76, 122, 124  
 Co-ordination as a continuous process, 113, 115, 116  
 — as a reciprocal relating all factors, 113, 115, 123  
 —, difficulties of, 62  
 — in the early stages, 113, 114, 123  
 —, need for improved methods of, 7.  
 —, purpose of, 44  
 Corporate bodies, 49  
 Criticism and review, 63  
  
 DALE, H. E., 13  
 Definition, 20, 120  
 Delegation, 43, 51, 114, 125  
 Departmentalism, 115  
 Design, necessity for, 38  
 Determination of limits of groups of activities, 56, 57  
 Determinative functionalism (legislative), 43, 53, 126  
 Determinism, 20, 119  
 Development of scientific management, 40, 61  
 Devices, 33  
 Direct contact, 113, 114, 123, 124  
 Discipline, 78, 92-4, 129  
 — should be precise and impersonal, 94-5  
 Distinction between control and accounting, 104-5  
 — — kinds of duties and loves of authority, 47  
 Doctrine, 68-69  
 Duties, 41  
 —, definition of, 53  
  
 EASY Remedy, 15  
 Economic factors, measurement of, 21, 22  
 Emoluments, 85-6  
 Engineering approach, 35-6  
 Equity, 78, 91-2, 128  
*Espirit de corps*, 78, 82, 128  
 Evidence, 92, 129  
 Example, 40, 125  
 Exception principle, 110, 123, 126  
 Executive function, 43, 53  
 — leadership, 74  
 — superintendence, 66  
 — supervision, 66  
 Exodus, 51  
  
 FAIR play, 50, 125  
 Fashion, planning to meet changes in, 31  
 Fayol, Henri, 16, 19, 34, 41, 43  
 Fear of control, 112-13  
 Fileno, E. A., 77, 79, 118  
 Financial conditions, 21

- Figures as one aspect of control, 101-2  
 Flexibility, 30, 121  
 Foch, Marshal, 68  
 Collett, Mary Parker, 17, 20, 30, 104,  
 111, 113, 115  
 Ford, Henry, 31, 32  
 Forecasting, 10, 18, 19, 20, 5, 120  
 —, limited use of, 21  
 Formal channels, 47  
 Functional definition, 43, 56, 126  
 — differentiation, 56  
 — foremanship, 54
- GENERAL ideas, 13  
 — interest, 77, 127  
 — superintendence, 66  
 German Army, 50  
 Governing authority, 63  
 Government control, 97-8  
 Graicunas, V. A., 52  
 Group incentives, 44  
 Grouping of equipment, 59  
 Guedalla, Philip, 13
- HAMILTON, Sir Ian, 27, 51-2, 69  
 Hitler, Adolf, 45  
 Human factor, 41  
 — material, 36, 37, 58, 83, 4, 102, 118
- INITIATIVE, 78, 88, 9, 128  
 Integration of authority, 61  
 Interpretative functionalism (judicial),  
 43, 53, 54, 127  
 Investigation, 17, 18, 19, 20, 24, 119
- JORDAN, J. P., 106  
 Judicial function, 43, 53, 54, 55, 91  
 Jurisdiction, 64-5  
 — by committees, 72
- KIMBALL, Dexter S., 70
- LABOUR, division of, 44, 48  
 Lateral correlation of functions, 68  
 — relations, 67  
 Leadership, 43, 49-51, 88-9, 125  
 Legislative function, 43, 53, 127  
 Levels of authority and responsibility,  
 63-5  
 — of remuneration, 85  
 — of supervision of operation, 66  
 Liaison between policy and operation,  
 63  
 Lindeman, E. C., 72  
 Line relations, 67
- MARNE, Battle of, 90  
 Measurement, 20, 120  
 Mechanisation, 59  
 Money, 27  
 Montague, C. E., 99
- Mooney, J. C., and Roiley, 17, 42, 43,  
 44, 46, 49, 50, 51, 53, 54, 55, 68  
 Morale, 89
- NATIONAL planning, 26  
 Nightingale, Florence, 48  
 Numerical division of individuals, 58
- OBJECTIVE, the principle of, 20, 120  
 Operating authority, 6  
 Operation, 84  
 Order, 17, 18, 19, 122  
 Organisation, 16, 18, 19, 36, 121  
 — and co-ordination, principles of,  
 35-55  
 —, methods, 56-76  
 —, definition of, 35-6  
 —, main concepts of, 41  
 —, position of in the general scheme  
 of administration, 42  
 Oversight, 66
- PENSIONS, Ministry of, 57, 58  
 Permanent planning board, 104  
 Personal touch, 38  
 Planning, 16, 18, 19, 26-34, 120  
 — in wartime, 30  
 —, methods of, 33  
 — principles, 33  
 Playing politics, 39  
 Power, 41  
 Practical man fallacy, 40  
 — men, 13  
 Preface, 7-11  
 Principles of administration, 16, 17, 19,  
 20  
 — of command and control, 78  
 Profit motive, 27, 77, 79, 80  
 Promotion, 86  
 Psychological control, 110  
 — tests, 84  
 —, unity in co-ordination, 76  
 Publication, 70-1  
 Purpose of business, 79
- QUILLER-COYON, Sir Arthur, 63
- RECIPROCAL adjustment, 112  
 Red tape, 95  
 Regional control, 49  
 Relation, 20, 119  
 Relationship, 67  
 Report of the President's Committee  
 on Administrative Management, 71,  
 74, 105  
 Research, 17-18, 20  
 Responsibility, 41, 125  
 Responsibility, distribution of, 62  
 Rewards and sanction, 78, 85, 128  
 Ross, T. G., 107

- SALARY grading, 86  
 Sanctions, 87-8, 128  
 Scalar process, 43, 46-7, 48, 114, 124  
 Schellendorf, Bronsart von, 75  
 Selection and placement, 78, 82-3, 128  
 Serial method of determination of groups, 58  
 Shakospeare, 91  
 Shirer, William L., 50  
 Simplification and standardisation, 28-9, 31, 120  
 Specialisation, 48, 126  
   —, necessity for, 61  
 Stability, 78, 95, 120  
 Staff relations, 67, 75  
   — requirements, 23-4  
 Statistical control, 109  
 Status, 65  
 Structure of organisation, 39  
 Study, 24, 82  
 Subjective method of assigning functions 56, 60  
   — relations, 67  
 Subordinates, acts of, 60  
 Supervision, 60, 60  
   — of operation, 64, 65-7  
 TAWNEY, Professor, 77  
 Taylor, F. W., 18, 45, 48, 54, 87, 110  
 Training, 69-70  
 UNIFORMITY of instructions, 70  
   —, principle of, 107, 122  
 Unitary method of determination :  
   groups of activities, 57  
 Unity in control, 111-112  
 Ure, Alexander, 94  
 Urwick, L., 20, 73, 74  
 Utility, principle of, 108-10, 122  
 WELLS, H. G., 81  
 YES-MEN, 89

